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Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

Volume 18 Number 3

March, 1961

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inflammation

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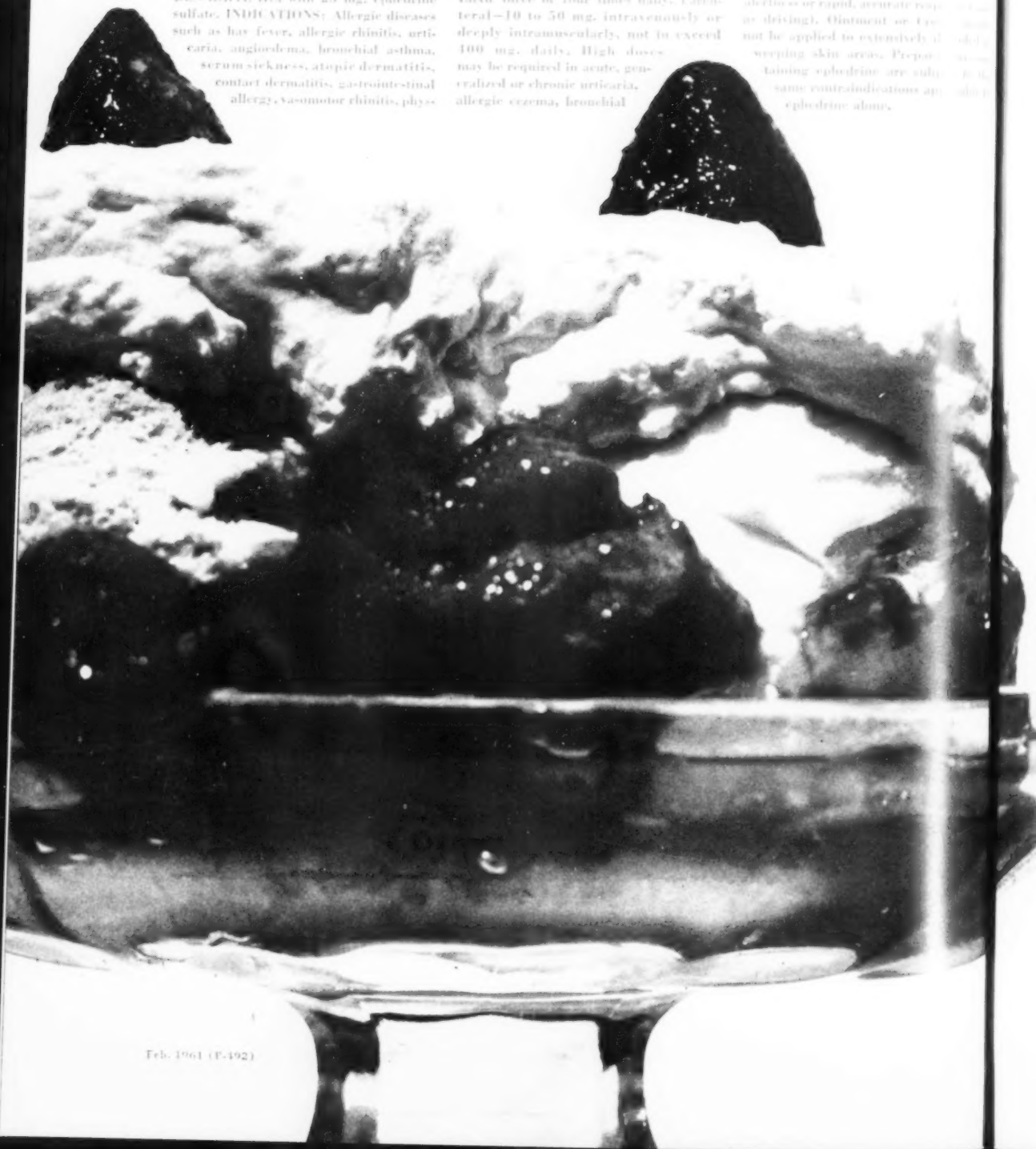

Feb. 1961 (P-492)

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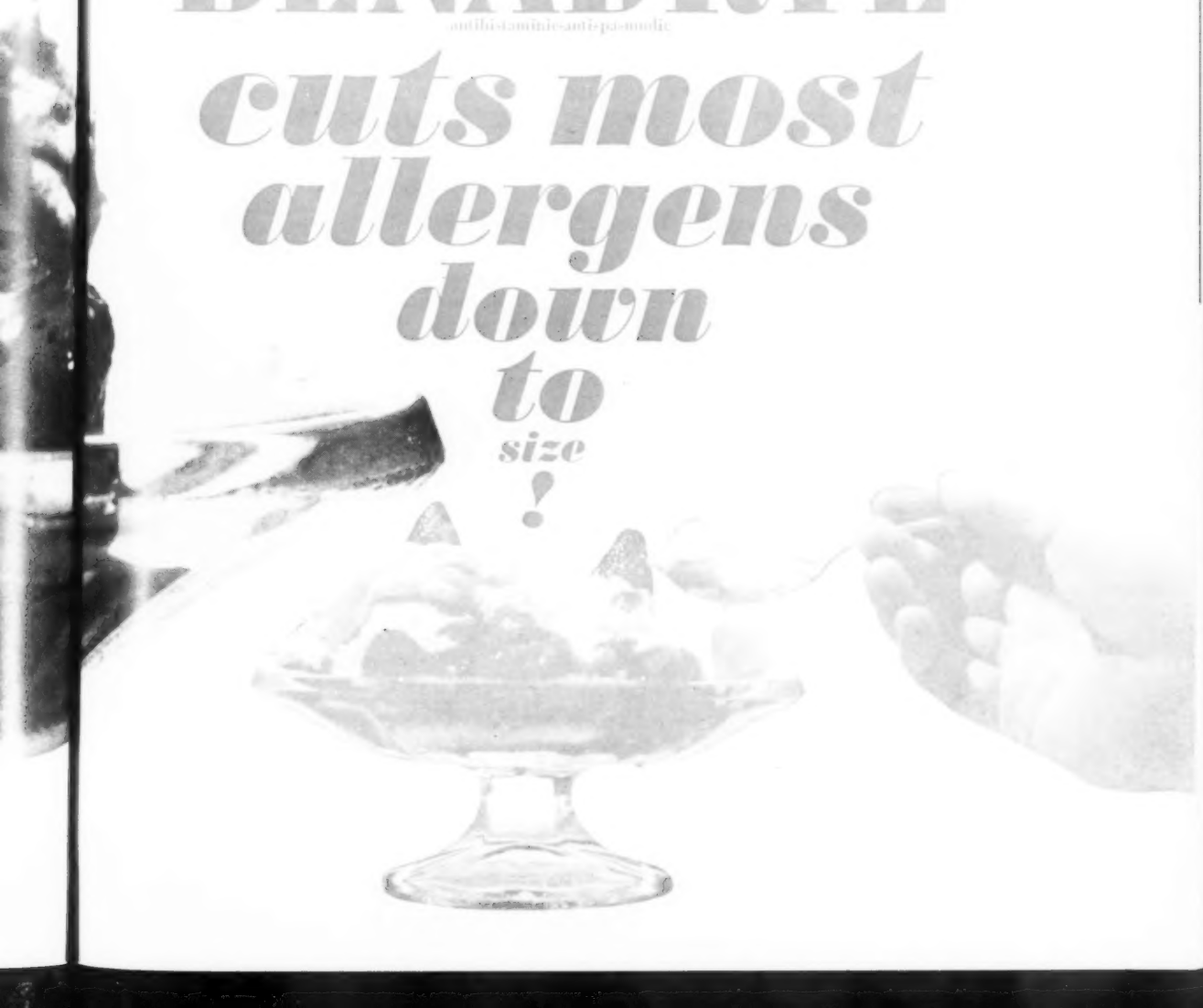

Arizona Medicine

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MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

March, 1961 Vol. 18, No. 3

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Usual adult dose is 250 mg. every six hours. Children, in proportion to age and weight. Won't you try Erythrocin?

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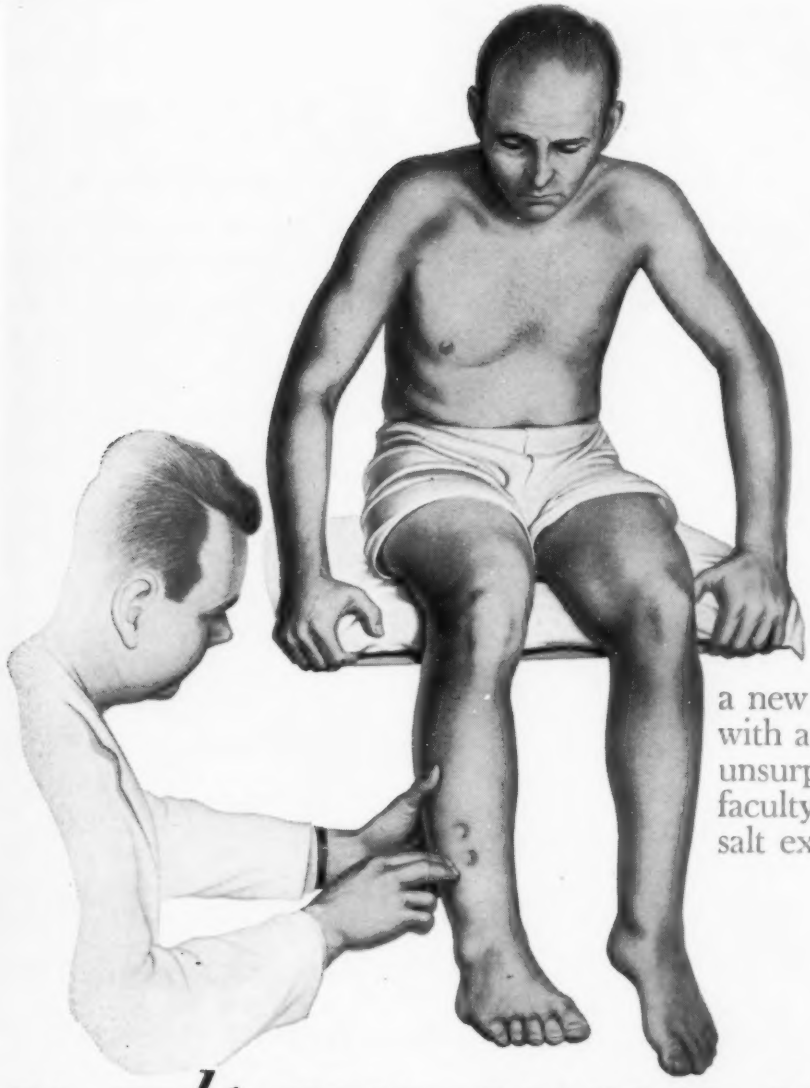

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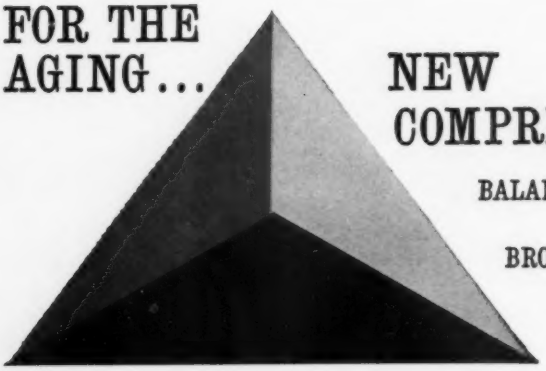

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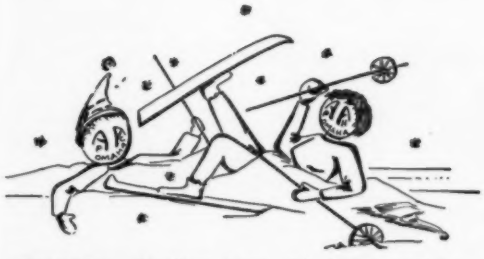

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Dornwal is one tranquilizer that doesn't make people sleepy. It's a tranquilizer pure and simple. Its effectiveness you will see clearly the next time you encounter a patient given to tension headaches. Try Dornwal and see the results.

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LITERATURE AVAILABLE ON REQUEST

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Richmond Hill 18, New York

*U.S. Patent Nos. 2,628,185 and 2,907,768

How do Filmtab® coated vitamins stack up?

Up until the moment we put the coatings on the Optilets® below, the tablets were all the same. Now, consider the differences.

The column on the left contains 125 Optilets with a conventional sugar coating.

The column on the right—125 Optilets with a Filmtab coating.

How do they stack up?

Well it's easy to see that the column on the right is much shorter. That's because the Filmtab coating cuts tablet bulk up to 30%. The result is a small, streamlined vitamin that's easy to swallow—the most compact tablet of its kind.

And when it comes to protecting potency (the main function of a coating), the Filmtab is in a class by itself. Sugar coatings, by their very nature, are aqueous solutions. Yet every measure must be taken to keep moisture out of the vital tablet core, necessitating "seal" coats which also increase bulk. The Filmtab operation, on the other hand, is essentially an anhydrous procedure. Seal coats are neither used nor needed. The chances of moisture being trapped inside the tablet are infinitesimal.

No chipping or breaking, no vitamin tastes or odors, no wasted vitamins—thanks to the Filmtab coating.

Only the Abbott Filmtab offers so much in so little.

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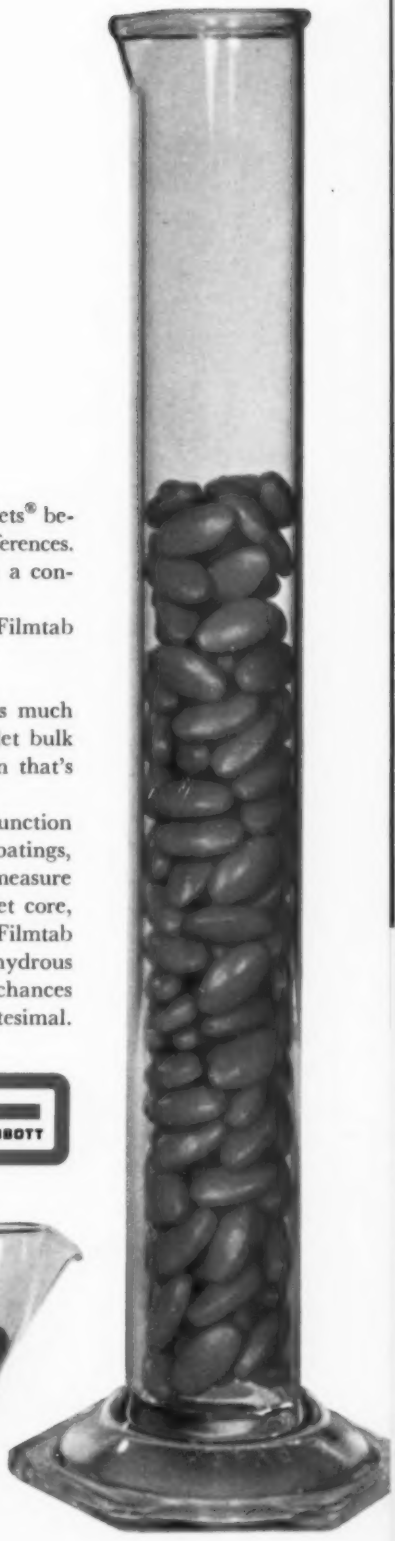

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...in attractive daily-reminder table-bottles

MAINTENANCE FORMULAS

DAYTEENS™ To help insure optiomal nutrition in growing teenagers

Each Filmtab® represents:

Vitamin A	(5000 units) 1.5 mg.
Vitamin D	(1000 units) 25 mcg.
Thiamine Mononitrate (B_1)	2 mg.
Riboflavin (B_2)	2 mg.
Nicotinamide	20 mg.
Pyridoxine Hydrochloride	0.5 mg.
Cobalamin (Vitamin B_{12})	2 mcg.
Calcium Pantothenate	5 mg.
Ascorbic Acid (C)	50 mg.
Iron (as sulfate)	10 mg.
Copper (as sulfate)	0.15 mg.
Iodine (as calcium iodate)	0.1 mg.
Manganese (as sulfate)	0.05 mg.
Magnesium (as oxide)	0.15 mg.
Calcium (as phosphate)	250 mg.
Phosphorus (as calcium phosphate)	193 mg.

In table bottles of 100, bottles of 250 & 1000

DAYALETS® Extra-potent maintenance formulas, ideal for the nutritionally "run-down"

Each Filmtab® represents:

Vitamin A	3 mg. (10,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Mononitrate	5 mg.
Riboflavin	5 mg.
Nicotinamide	25 mg.
Pyridoxine Hydrochloride	2 mg.
Cobalamin (Vitamin B_{12})	2 mcg.
Calcium Pantothenate	5 mg.
Ascorbic Acid	100 mg.

In table bottles of 100, bottles of 50, 250 & 1000

DAYALETS-M® Each Filmtab represents all the vitamins of Dayalets plus the following:

Iron (as sulfate)	10 mg.
Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.

In table bottles of 100 & 250, bottles of 1000

THERAPEUTIC FORMULAS

OPTILETS® Therapeutic formulas for more severe deficiencies—illness, infection, etc.

Each Filmtab® represents:

Vitamin A	7.5 mg.(25,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Hydrochloride	10 mg.
Riboflavin	5 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	6 mcg.
Calcium Pantothenate	20 mg.
Ascorbic Acid	200 mg.

In table bottles of 30 & 100, bottles of 1000

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Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.

In table bottles of 30 & 100, bottles of 1000

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Each Filmtab® represents:

Thiamine Mononitrate	6 mg.
Riboflavin	6 mg.
Nicotinamide	30 mg.
Pyridoxine Hydrochloride	2.5 mg.
Cobalamin (Vitamin B_{12})	2 mcg.
Calcium Pantothenate	10 mg.
Ascorbic Acid	50 mg.
Desiccated Liver, N.F.	50 mg.
Liver Fraction 2, N.F.	50 mg.
Brewer's Yeast Dried	50 mg.

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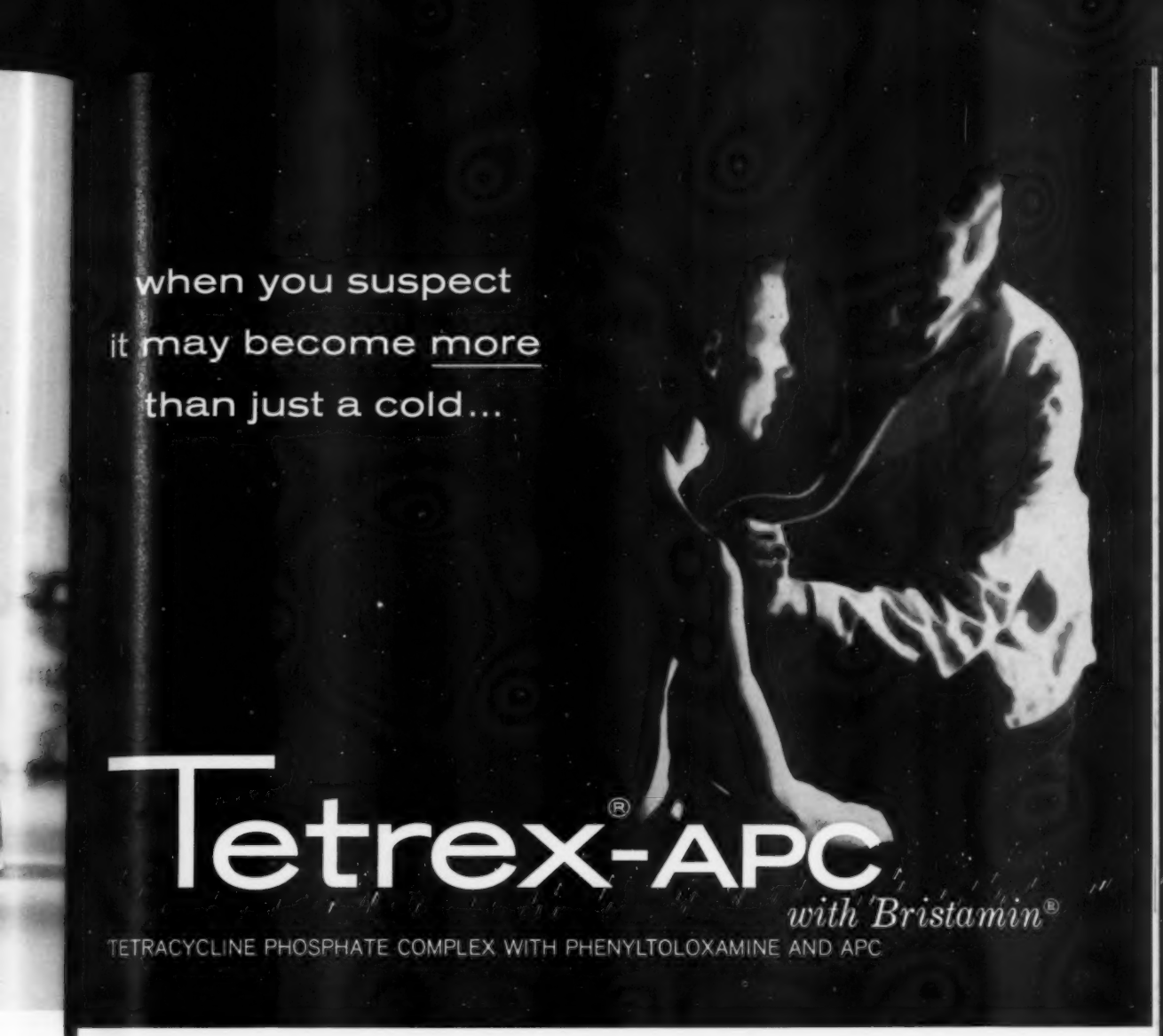

Only a single prescription provides:

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Capsule contains:

ANTIBIOTIC
TETREX (tetracycline phosphate complex equivalent to tetracycline HCl) ..... 125 mg.
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Dosage: Adults: 2 capsules 3 or 4 times a day for 3 to 5 days.
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Supplied: Bottles of 24 and 100 capsules.

According to a report by the Council on Drugs of the American Medical Association,* antibiotics may be administered for prophylaxis against secondary bacterial invaders in the following types of patients with influenza: pregnant women; debilitated infants; older individuals; patients being treated for other bacterial infections with chemotherapeutic agents, and patients with chronic, nonallergic respiratory disease.

*Council on Drugs, J.A.M.A. 165:58 (Sept. 7) 1957.

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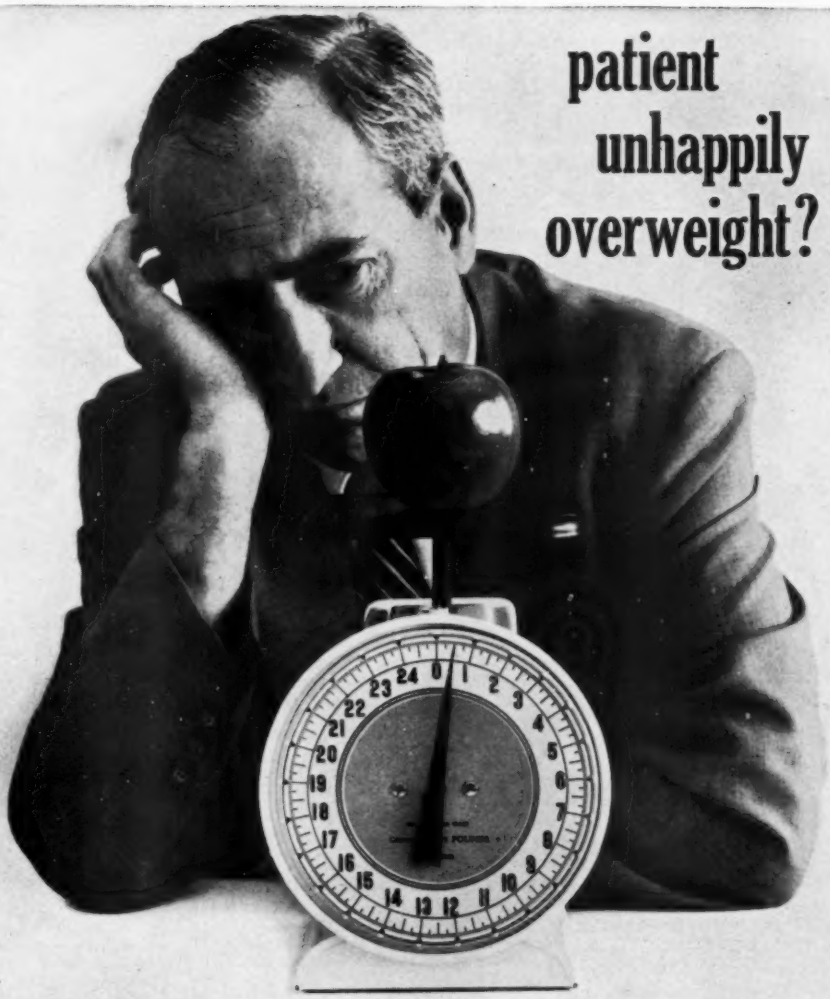

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[1] Douglas, H. S.: West. J. Surg. 59:238 (May) 1951.

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Thanks to your prompt treatment and the smooth action of Deprol, her depression is relieved and her anxiety and tension calmed – *often in a few days.* She eats well, sleeps well and soon returns to her normal activities.

Lifts depression...as it calms anxiety!

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Balances the mood – no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient – *they often aggravate anxiety and tension.*

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In contrast to such "seesaw" effects, Deprol's smooth, *balanced* action lifts depression as it calms anxiety – both at the same time.

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Acts safely – no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function – frequently reported with other antidepressant drugs.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate. **Supplied:** Bottles of 50 light-pink, scored tablets. Write for literature and samples.

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as easy and pleasant to use as a fine cosmetic

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Emko is the result of a philanthropic research program established to seek a contraceptive that would prove effective in controlling birth rates of over-populated areas.

For that reason, it had to be effective under the most adverse conditions... acceptable to women of low motivation . . . entirely different from jellies, creams and other methods.

Emko Vaginal Foam was developed for use in Puerto Rico. This most successful experience led to the decision to make Emko available in other areas, including the United States.

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USING PRINCIPLES NEVER BEFORE APPLIED TO CONTRACEPTIVES

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Only a FOAM can successfully serve this diaphragm-like function . . . without interfering with normal intercourse or reducing sensory contact.

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quickly renders the trapped sperm immotile.

EASIER TO USE THAN ANY OTHER EFFECTIVE CONTRACEPTIVE

The foam is placed with an entirely new type of "Touch Control" applicator. It's filled automatically by touching the open end to the top of the bottle.

- **No douching . . . it vanishes after use**
- **Absolutely no greasiness or "after-mess"**
- **No diaphragm . . . the foam does the blocking**
- **No irritation for husband or wife**

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INTERIM REPORT

In the Contraception Service of the Margaret Sanger Research Bureau, through October 31, 1960, Emko had been used from one to 22 months by 362 patients, with a total of 12 unplanned pregnancies. Seven of the pregnant patients admitted irregularity in the use of Emko.

Two planned pregnancies had also occurred after stopping the use of Emko.

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Now—From the makers of Fleischmann's Margarine comes the...

First Unsalted Margarine Made from 100% Golden Corn Oil!

- ✳ Wonderful for sodium-restricted diets—10 mgs. of sodium per 100 grams!
- ✳ Contains polyunsaturated liquid corn oil and partially hydrogenated corn oil!
- ✳ Delicious flavor like the sweet, high-priced spread!
- ✳ Fresh-Frozen—available only in grocers' frozen food cases!

Fleischmann's Margarine was the first to make available the benefits of 100% corn oil with the lightly salted flavor preferred by so many.

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Smooth, Fresh Flavor Preserved By Exclusive Fresh-Frozen Process!

This new unsalted margarine has a light, fresh flavor your patients will find delicious. And because it contains no salt or other preservatives, it's Fresh-Frozen for flavor protection. You can be sure it's always fresh and pure.

Although this new margarine is Fresh-Frozen, the quarter in use may be kept in the refrigerator as any other spread. The remaining quarters should be stored in the freezer.

Recommend The One That's Best For Your Patient

If your patient needs sodium restriction or prefers the flavor of an unsalted table spread, recommend new Fleischmann's Sweet (Unsalted) Margarine. It comes in a *bright green* foil package in the grocer's frozen food case. Or, if you want your patient to use a corn oil margarine, and salt is no problem, then recommend lightly salted Fleischmann's Margarine. It's in the *golden* foil package in the refrigerated case.

By the Makers of Fleischmann's Yeast

Fleischmann's CORN OIL MARGARINES...
Both made from 100% CORN OIL

Arizona Medical Association Reports

Arizona Medicine

Vol. 18, No. 3 March, 1961

Board of Directors, Minutes December 18, 1960, Meeting

Meeting of the Board of Directors of The Arizona Medical Association, Inc., held Sunday, December 18, 1960, Clarence E. Yount, Jr., M.D., (Vice President), Chairman, presiding.

ARIZONA STATE TUBERCULOSIS SANATORIUM

Dermont W. Melick, M.D., Past-President (Phoenix) introduced the following physicians and hospital administrator appearing before this Board on invitation for the purpose of presenting their views associate with the proposed construction of a new Arizona State Tuberculosis Sanatorium:

Derrill B. Manley, M.D. (Phoenix), President, Maricopa Pediatric Society.

Stanford F. Farnsworth, M.D. (Phoenix), Director, Maricopa County Health Department.

Walter Brazie, M.D. (Kingman), Chairman, State Board of Health.

Clarence G. Salsbury, M.D. (Phoenix), Commissioner, State Department of Health.

Fred Payne, M.D. (Phoenix) Director of Communicable Diseases, Arizona State Department of Health.

Lloyd K. Swasey, M.D. (Phoenix), President, Medical Staff, Arizona State Tuberculosis Sanatorium.

Ben P. Frissell, M.D. (Phoenix), Chairman, Subcommittee on Public and School Health of the Professional Liaison Committee of the Association.

Anthony Garrick (Phoenix), Administrator, State Tuberculosis Sanatorium.

Doctor Melick opened the discussion, expressing the views of the Arizona State Health Department, being of the belief that the State Legislature is only awaiting a recommendation as to the need for a new tuberculosis hospital. It is estimated to provide for a 200-bed hospital consisting of 120 beds for adult care, 40 beds for pediatric care, 20 beds for diagnostic care and 20 beds for geriatrics, will cost up to $3,250,000. This year the Legislature appropriated $50,000 for planning. A sum of $250,000 representing Federal monies has been promised for the first year, with an additional $250,000 for the second year. Additional funds might be anticipated. He urged Association support in this project.

Doctors Manley and Swasey and Mr. Anthony Garrick presented facts and figures supporting the need for additional beds for the care of tuberculosis patients, including adult and child care, submitting to interrogation by the members of the Board. Following departure of the guests and due deliberation of the Board, the following action was taken.

It was regularly moved and unanimously carried that we (the Association) go on record approving the building of a new tuberculosis hospital or hospitals; and that we instruct our Legislative Committee to make it a very high priority health program in the next year.

EXECUTIVE COMMITTEE REPORT

Lindsay E. Beaton, M.D., President, and Chairman of the Executive Committee of the Board of Directors, reported the following actions taken by said Committee at a meeting held December 17, 1960:

DR. BEATON: Let me apologize for the late date at which this reaches you.

Legislative Committee:

(a) The Executive Committee voted to accept the recommendation that no action be taken with regard to trying to get a statute in the State of Arizona which would be like the California statute — protecting doctors who will stop and give first aid at the scene of an accident. Evidently such legal protection is not needed in this State; (b) We voted to accept the report that immediate information be promulgated to anyone who is using a fluoroscope in shoe fitting in either a department store or a shoe store, that this is against good health procedures, and secondly, that we support in general terms a bill which is going to be brought out by the Podiatrists making it illegal to use a fluoroscope for shoe fitting, because we don't want to be put in the position of backing a bill, the specific terms of which we do not know; (c) We accepted the advice that no attempt be made at the present time to pass for the State of Arizona a Uniform Hazardous Substances Act. As you know, Federal legislation has been passed under Public Law 86-613; this was backed by the AMA and we think we should see how this works on the federal and national level before we go to the enormous task of trying to pass one here; because there are so many parts of the Arizona statutes that govern poisonous substances, this would be a major legislative effort; (d) We are advising Doctor Hamer of the Legislative Committee to contact Doctor McIntire of the Children's Colony about his enlargement of the Children's Colony, and branch operations in Phoenix and Tucson. Before we do anything in a legislative way to adopt Doctor McIntire's bill, we are asking Doctor Hamer to contact him and to get specific information; (e) We are advising the Legislative Committee to support any titles of a bill on ambulance emergency service having to do with purely medical matters. We feel that this would indicate our backing — first, for training of ambulance operators in first aid, etc., and second, for the provision of proper equipment in ambulances. We don't think that we should go on into other matters which have to do with functions that are really those of the Arizona Corporation Commission in regard to licensing, and so on; (f) We are noting the Legislative Committee's reaction, which is also the reaction of the ad hoc committee on the Medical Practice Act, that there is no need, contrary to what has been thought, to change the Medical Practice Act so as to specifically cover the care of mental illness as a part of the practice of medicine. When you read the definitions in the first section of the Medical Practice Act you'll find this is already covered; (g) We are taking no action at the present time on cancer registry legislation until we have information from other States, which is being collected, as to how their cancer registries have worked in such a way as to protect the names of people who are afflicted with the disease; (h) We are further awaiting information on Doctor Brayton's bill about cancer quacks. We have no specific information and we will have to wait until we get some before the Legislative Committee can be instructed to act; and (i) We are accepting the Legislative Committee's recommendation that we sponsor the amendment to Section 13-213, which you will remember is the section dealing with contraception and abortion, and this is going along with the action taken by the Board at its last meeting to delete that phrase which puts contraception in that part of the statute. The Executive Committee approved the Legislative Committee's report but recommends to the Board that the exact form of this be worked out as the legislative processes proceed.

There were two extra items that we considered under legislation. These had to do with:

(j) an intermediate institution for juvenile delinquents, and we understand that a bill is going to be proposed for the construction of such an institution. By "intermediate" is meant an institution somewhere between Fort Grant on the one hand, and the institutions like our Child Guidance Clinics in Phoenix and Tucson on the other. We recommend to the Board that if such an institution be approved by the Legislature, the Medical Association through its Legislative Committee go on record as stating that such an institution must be near Phoenix or Tucson. We are further instructing the sub-committee to investigate first, the need for such institution; second, the question as to whether private admissions as well as committed patients can go there; thirdly, whether all admissions must be through a Court, or whether there will be other forms of admission to such an institution, as we feel an intermediate institution of this sort may be needed in the State and should not merely be a Court adjunct, which would be a mental institution; and (k) we are going to recommend that what I will call for the purposes of abbreviation, a Schwartzmann proposal, be seriously considered by the Legislative Committee as proposed legislation for this year. Now the Schwartzmann proposal in brief is a proposal for the care of the medically indigent in this State. This comes about through our instruction to the Professional Committee to prepare some kind of implementation on a State level of the provisions of the Kerr-Mills Bill. You will remember that the State Board of Public Welfare, meeting in Tucson last month, decided that it would do nothing to implement in this State the Kerr-Mills Bill; since AMA and this Association are both on record as wishing to provide some kind of State implementation of the Kerr-Mills Bill, we instructed the Professional Committee to look into some way of doing this. Now, this is very roughly Doctor Schwartzmann's proposal: at the present time Health & Welfare and County medical expenditures for the indigent amount to $9 million a year in the State of Arizona. In addition, the State Department of Health & Welfare has an additional $2 million that it spends; not all, of course, are health matters. So this means that the State of Arizona now spends $11 million a year on the care of its indigents, and there are 84,000 people in the State of Arizona over the age of 65, 14,000 of whom are on Old Age Assistance. There are 50,000 indigents of all ages; this includes the 14,000 who are on Old Age Assistance. It is Doctor Schwartzmann's proposal that insurance be underwritten with the money that is now being spent for various kinds of health care for the indigent — not just the aged indigent, but all indigents, and he states that this could be worked out in such a way as to cover the Federal requirements in the Kerr-Mills compromise. What he would do, in brief, is to pass legislation which would divest the Counties of all responsibility for the care of the indigents. This would mean, eventually, the abolition of County hospitals. The law would then centralize in a State agency, presumably with some kind of strong representation from the State Medical Association, the function of caring for the indigent. It would provide, eventually, through health insurance, that all indigent patients would be cared for by private physicians in private hospitals; it would of course require the acceptance by the physicians of the State of some kind of a fee schedule basis that would allow the care within the budgetary requirements. He assures me that medical care of the aged under this proposal would qualify the State for the reception of medical care funds from the Federal Government under the provisions of the Kerr-Mills Bill. In summary, Doctor Schwartzmann says this would remove responsibility from the counties; that it would centralize the care of all indigent aged under a single agency; that it would provide a vendor insurance type of payment; and that it would provide private physician care for the indigent and the free choice of physician.

Now, your Executive Committee feels that this is a good, albeit long, proposal for the care of the indigent in this State. We feel that it has advantages that are met by no other proposal that we know of. We do feel, however, it might be necesary, even if we do propose such legislation, for the Legislative Committee to keep in mind the necessity of having some short-term alternative to meet the current needs of the Kerr-Mills Bill this year, for the following obvious reasons, which I am sure is present AMA thinking: that if we do not do something right now, and if the new Congress that meets is not made to see that Arizona, like the other States, will do something to implement the Kerr-Mills Bill, it will be very likely that the new Congress will pass Forand-type legislation. So that we

think there is a good deal of urgency about getting legislation before our Legislature, which will not only be a long-term program, but also that will have some short-term proposal that will enable us to meet the Kerr-Mills Bill needs. Not only that it's good legislation, but that it will save us from the unhappy necessity of working under a Forand-type Social Security Bill.

Now, there is a digest of a very immense amount of work, but we do recommend that the Legislative Committee work on setting up such a proposal for presentation to the Legislature. The State Board of Public Welfare is not going to do it.

It was regularly moved and carried that we accept the report of the Legislative Committee, including the recommendations of the Professional Committee dealing with implementation of the Kerr-Mills Bill under the "Schwartzmann" plan.

Woman's Auxiliary: Nurse Scholarship Loan Fund.

Mrs. Cummings, the President of the Woman's Auxiliary, asked for more leeway for the Auxiliary and the disposition of a Nurse Loan Scholarship Fund, and we voted to approve this. She would like to have permission to try loans—not only to the diploma schools, that is, to the schools of nursing in hospitals, but also to the two-year program at Phoenix College, the collegiate programs at both of the universities, and even on a pure gift, not a loan, basis to most graduates — girls who might want to go into some kind of postgraduate nursing, and also for the future perhaps even for licensed practical nurses. At the present time the loan fund is limited to the three-year diploma schools. We passed a motion that more leeway be given within the limits set by Mrs. Cummings, but that the nurse loan scholarship fund was to stay in the nursing field and not to go into any other paramedical groups.

Mrs. Cummings told us the Woman's Auxiliary is not this year sponsoring the essay contest of the AAPS.

It was regularly moved and unanimously carried that we approve expenditure of such funds for scholarships within the general nursing field, provided that such expenditures are made with the approval of the Nursing Scholarship Loan Fund Committee of the Woman's Auxiliary.

Administrative:

(a) We received the monthly financial reports for October and November, reviewed and accepted them. These monthly reports will not be detailed to the Board but any member of the Board can see them at any time they wish. We felt that it was not worthwhile going over the details of each month's financial operations by the full Board, but we reviewed them in detail.

Benevolent and Loan Fund:

(a) We approved a recommendation of the Benevolent and Loan Fund Committee, and this recommends a change of our charitable contribution to medical education in the United States from AMEF to our Benevolent and Loan Fund. This would be done by resolution at the House of Delegates from the Benevolent and Loan Fund Committee. In other words, this would say that either the whole or a part of our AMEF contribution of $10 per person would be diverted to our Benevolent and Loan Fund. We're trying to build up our fund so that we can lend money to Arizona residents who are going into medicine; we'll have to do it in some way and this is one possible way to build it up — possibly for the House of Delegates to do this; (b) we approved a report made by Preston Brown on the situation; and (c) we approved a letter which is being sent out to the members acquainting them with this problem and asking their co-operation in conferring with patients, pharmaceutical societies, etc. to get money for the Benevolent and Loan Fund.

Medicare Contract:

We approved the signing of an additional supplemental agreement to the Medicare Contract — this was purely an Administrative matter.

Professional Committee:

We approved the following actions of the Professional Committee: (a) Refer the Youngtown request for physician care to the Medical Economics Committee and to the subcommittee on Insurance for some kind of plan that would meet their needs; (b) Refer the problem of press coverage, the question of newspaper, magazine advertisements and articles, the speaker's bureau and so on, with the general idea of getting a better public press for Medicine, to the Public Relations Committee; (c) The possible use of the Auxiliary to distribute material to doctors' offices was included in this recommendation.

(d) At the time of the next meeting, Doctor Smith will be present to give the Executive Committee's point of view on the kind of public health program we want. We have had some very noble platitudes from the Public Relations Committee but we have had no concrete plan of what they want to do, and this motion is to get them to stir off their laurels. (e) The next item came from the resolution of the State of Virginia, the policies of the Joint Commission on Accreditation of Hospitals. We are asking the Professional Committee again to prepare a resolution to the House of Delegates on the Arizona feeling about the Joint Commission on Accreditation of Hospitals. Two years ago we prepared such a resolution, it was sent to the House of Delegates of AMA, it was changed; (f) The Professional Committee asked that some action be taken about the venereal disease rate in Arizona, but they made no specific recommendations, and therefore the Executive Committee has advised Arizona Medicine to publish an article informing the physicians of their obligation to report cases of venereal disease. One of the reasons that we think this is important is that Santa Cruz County reports no cases of VD month after month. Secondly, our Central Office will ask Doctor Salsbury in what way the Association and the doctors of Arizona can co-operate to do something to lower this VD rate; (g) We are also asking *Arizona Medicine* to publish an article to be prepared by the Arizona Radiological Society on the question of the need for skin tests in the intravenous use of contrast materials, the use of an intravenous injection of a cc. contrast material before the injection of the whole amount. This arose because the Arizona Radiological Society advised that this was no longer a proper thing since these materials are salts, they are not proteins, there is no allergic response available that can take place, and yet the materials themselves always come with a statement to do a skin test; and (h) Informed the Professional Committee in response to an appeal that the Principle of Ethics of the AMA be embodied in the Medical Practice Act, that the Medical Practice Act already contains as practical definition of ethics as is legally possible in the first section; it states that any person who applies for a license in this State must meet reasonable medical ethics. We feel it would not be possible to do as the Professional Committee would like — to append the AMA's ethical rules to the Act.

Professional Liaison Committee:

Going to the Professional Liaison Committee: (a) We approved the recommendation that the Podiatrists may give a scientific exhibit at either County or State medical meetings. (b) We approved the format for Career Nights at the universities and at the high schools. This fulfills the recent AMA resolution No. 41 with regard to indoctrination of high school students about medicine. We also advised the Professional Liaison Committee to consider the use of the Auxiliary, which already has a very elaborate Career Night, Medical and Paramedical program, in the high schools, and we asked for an immediate report as to the concrete plans that they had, what nights they're setting up at the universities, etc.; and we finally asked that they consider the workshop method which worked out so very well at the universities for the Engineering Career Nights; (c) We took no action on a recommendation that we stand strongly against the proposal that public health certification be deleted as a requirement for teaching in the Arizona schools; (d) We advised that the Professional Liaison Committee contact Doctor McIntire of the Children's Colony about the question of setting up a Medical Advisory Committee for that Colony.

Publishing Committee:

We advised that in the future, through Mr. Boykin and the Secretary of the Association, meaning at the present time Doctor Smith who is Acting Secretary, that any question of possible libelous material that appears in committee reports will be held up for Executive Committee review before being published. We have recently had some remarks which I think are perfectly true but were felt possibly to be libelous, and we are going to hold it up for Executive Committee review — anything that Mr. Boykin picks up when he goes over the material and refers to Doctor Smith. (e) We voted to subscribe as an Association to the Better Business Bureau of Maricopa County, not because we are supporting the Better Business Bureau per se, but because we felt that the information we obtain from them about quacks and charlatans and other people is very valuable to us, and we voted this subscription.

Medicine and Surgery Act:

We approved the report of the ad hoc com-

mittee of the Board of Medical Examiners. This ad hoc committee has in essence approved the changes that we approved at our last Board meeting — four changes plus one other which dealt with licensure of full-time house staff physicians employed.

Membership Changes:

We approved membership classification changes for MURL EDMUND FULK, M.D. (Maricopa County Medical Society), approved membership designation change to "Active", dues exempt, account 70 years of age, effective January 1, 1961; ARTHUR C. CARLSON, M.D. (Maricopa County Medical Society), elevated to "Fifty-Year Club" membership on recommendation of the Society, effective in 1961; ALBERT J. HARRIS, M.D. (Gila County Medical Society), approved membership designation change to "Associate", dues exempt, effective January 1, 1961, account residency training; HUGH H. SMITH, M.D. (Pima County Medical Society), approved membership designation change to "Affiliate", dues exempt, effective January 1, 1961, account engaged in teaching at the University of Arizona.

Miscellaneous:

(a) We had a resolution from the Washington State Medical Society opposing prepaid provisions for the payment of blood transfusions. They said that there should be no setup in which you could prepay on the provision for blood; they felt this should be disapproved of. We disapproved this; said we would notify Washington State of our disapproval; and that we would notify our delegates to the AMA to vote against this resolution when it's presented at the AMA; (b) We instructed the Public Relations Committee to prepare a letter to the County Societies on the procedure for the nomination of candidates for the reception of the A. L. Robins Community Service Award plaque; then to be presented to the Board of Directors for final selection prior to the annual meeting; (c) Just for your information, in case you haven't seen it, twenty-six physicians in Arizona were recently presented the medallions of merit on the 75th anniversary of the founding of the University of Arizona. These are all physicians in the State who have practiced forty years or more, plus all presidents of the Association who are also Alumni of the University, and since Doctor Melick had already received such medallion, Doctor Bill Manning got his medallion recently; (d) The Osteopaths have sent a letter to us telling that they have disapproved the credit idea to members of the Osteopathic Association, and on motion of Doctor Smith the Board voted to send a letter of commendation and pleasure to the Osteopaths for this action; (e) We instructed our Counsel, Mr. Edward Jacobson, to contact the new Attorney General and set up a meeting with regard to the possibility of the Board of Medical Examiners having a lawyer who would be able to work together with the Medical Association in the implementation of matters of joint concern; in other words, we would like to get Mr. Pickrell to appoint a good attorney to work with the Board of Medical Examiners, not just to appoint some person without much experience, out of the ranks of his younger associates, and at this meeting some officer of the Association will be present, together with some members of the Board of Medical Examiners to see what we can work out. Mr. Pickrell is reported as being favorable to some such arrangement; (f) We have approved the writing of a letter to the Arizona Republic expressing the Association's pleasure at the recent articles by Mr. Bernie Wynn on the dangers of hypnosis and commending the Arizona Republic for its public interest in Medicine as manifested by the preparation of these articles. We thought they were very good; and (g) We voted a letter of appreciation to be sent to the American Association of Medical Assistants for their resolution opposing Forand-type legislation.

That concludes, Mr. Chairman, the report of the Executive Committee on actions taken, and I would like to move the acceptance of this report.

It was regularly moved and unanimously carried that this motion be amended in that we do not approve of the chiropodists exhibiting at the annual State or County Medical Society meetings; further, that chiropody ads be not accepted for publication in *Arizona Medicine Journal*, all current contracts in force to terminate on the expiration date.

A motion further amending the motion on the floor to the effect that no official action be taken commending the Osteopathic Society for its stand in opposing "credit card" payment for professional services rendered was lost by one vote.

On roll call, the motion to accept the report

of the Executive Committee, as amended, was carried.

OTHER BUSINESS

Press Releases

It was moved by Doctor Smith, seconded by Doctor Reed and unanimously carried that release of all information to the Press, especially as pertains to health care legislation, be the prerogative of the President of the Association until April 27th next.

Advisory Survey and Construction Council

Approved the nominations of the President: William B. Steen, M.D. (Tucson, incumbent; Arnold H. Dysterheft, M.D. (McNary); Joseph P. McNally, M.D. (Prescott), and Dermont W. Melick, M.D. (Phoenix), to be filed with the Governor who will appoint or reappoint therefrom one to serve as a member of the Advisory Survey and Construction Council (Chapter 10, Hospital Survey, Construction and Districts, Article I, Survey and Construction, Section 36-1203 A.R.S. 1956) effective January 1, 1961, for a term of four (4) years.

Ad Hoc Ministerial Liaison Committee

Approved the recommendation of the President that Derrill B. Manley, M.D. (Phoenix) at his request, be removed from the chairmanship of the ad hoc Ministerial Liaison Committee, continuing as a member, and reassignment of the chairmanship to Philip G. Derickson, M.D. (Tucson), a member previously appointed, including also James D. Barger, M.D. (Phoenix) and Leo L. Tuveson, M.D. (Phoenix).

AMA Dues Increase

DR. BEATON: The only other item is one brief report I have to give concerning the question of the AMA dues increase. As I understand, the House of Delegates voted a $20 increase, the first $10 to go into effect in 1962 and the second $10 in 1963, but this is not to be finally voted on until the June meeting. So this gives six months for the delegates to sound out their State Associations on this, and the Executive Committee took no action and felt they would like to have the Board of Directors' idea on an increase in dues.

May I suggest that, since we have until after our annual meeting to come to any final decision as an Association about this, we not make up our minds as a Board of Directors at the present time, but that rather we inform each County Medical Society of this, perhaps through the Secretary of the Society, and ask that discussion be carried out in each County Society so that the delegates will come to our annual meeting informed about it and ready to put the Association on official record after careful consideration as to the advisability of a dues increase for the purposes listed.

It was moved by Doctor Beaton, seconded by Doctor Smith and unanimously carried that the County Medical Societies be advised through their Secretaries of the question of an increase in AMA dues and be asked to hold discussions of this question in County Society meetings prior to the House of Delegates' meeting next April, and to prepare such resolutions as they may think would best represent the opinion of their local County Medical Society membership.

Arizona Medicine — Editorials

DR. BEATON: Mr. Chairman, this finishes the Executive Committee work. I have two other matters of information I would like to briefly bring before the Board. First, there has been some discussion among us as to the question of how much the editorials in *Arizona Medicine* should be taken as representing the official opinion of this Association. There is no way now in which the editorials reflect, for example, actions taken by this Board of Directors, and so on. They are merely articles written by various members of the Publishing Committee or by the person selected by the Editor, and there is a feeling among a number of us that while it's a perfectly proper place in *Arizona Medicine* for expressions of opinion by anyone, that official editorials on an editorial page should reflect the opinion of the Board of Directors and the official opinion of the Association. I do not wish to ask any action on this at the present time, but merely to inform you that this will be on the agenda of the next Executive Committee meeting to which the Editor himself will be invited so that we can thrash this thing out. I did not want to make any decision about it without him here to defend what they've been doing, but I think a number of us think that this is important.

Crippled Children

Doctor Running reported on the appointment of a separate new board for crippled children's services divorced from Welfare.

Lorel A. Stapley, M.D., Secretary
By Leslie B. Smith, M.D., President-elect
Acting Secretary

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2. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

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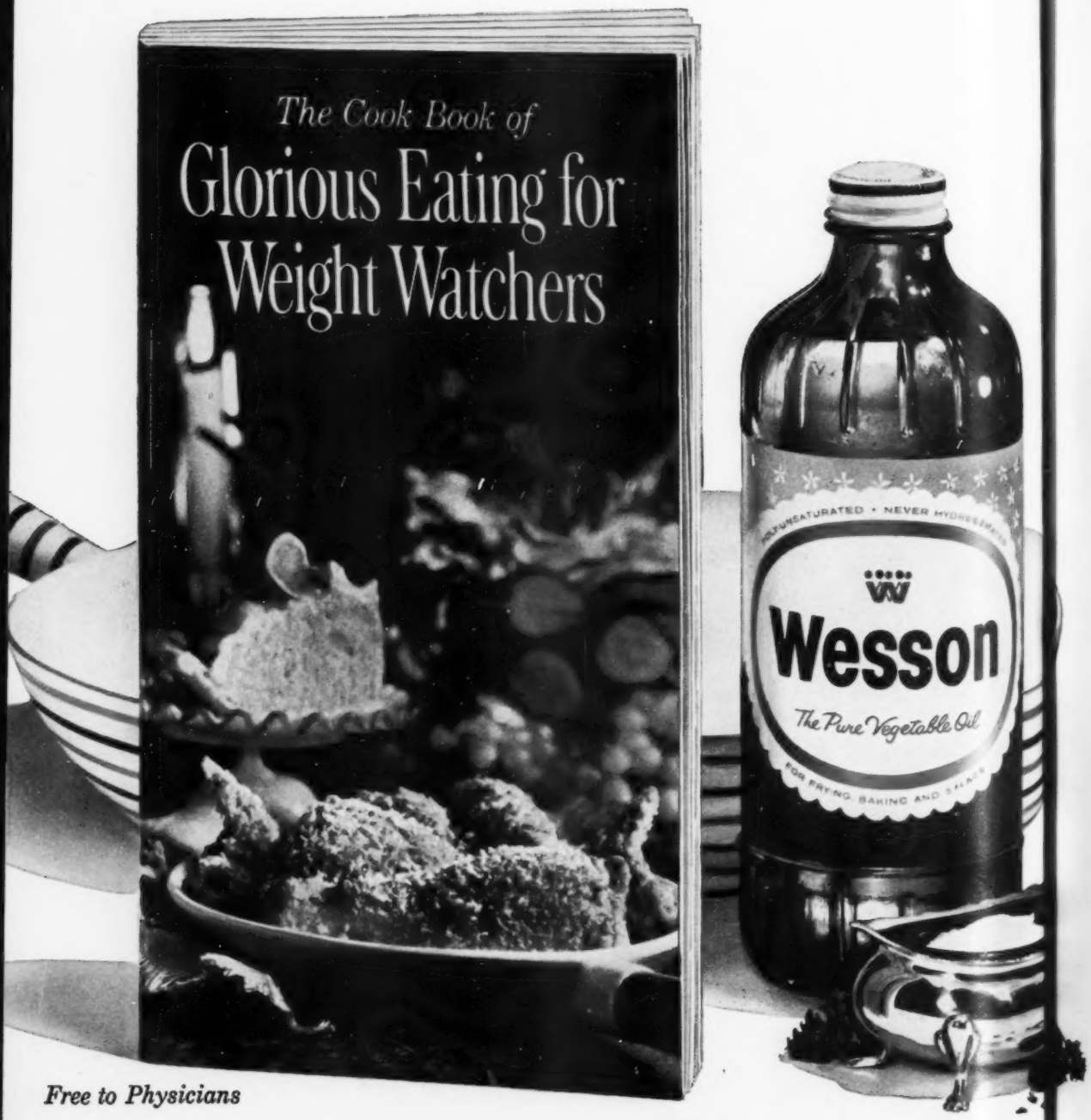

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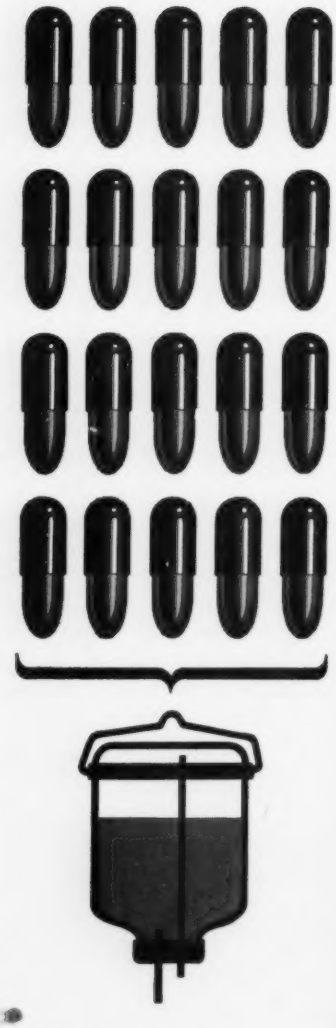

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Vol. 18, No. 3 March, 1961

Transfusion Therapy in the Emergency Treatment of Secondary Shock

John B. Alsever, M.D.

The following article is a concise, up-to-date and authoritative presentation of the use of blood, blood fractions and blood substitutes in emergency treatment of shock. The author emphasizes the safety of stored plasma and cautions against the use of "universal donor" whole blood under peace time conditions.

OUR KNOWLEDGE that depletion of circulating blood volume is the fundamental problem in secondary shock and that replacement of this lost fluid is the only effective therapy goes back to the pre-blood bank days of medicine, when blood transfusion was a major surgical procedure and treatment had to be largely based on the use of intravenous electrolyte solutions. Our knowledge and understanding of shock today is far more complete and detailed and, along with this, our ability to treat it effectively is also vastly improved by the ready availability of better therapeutic agents through blood banking.

Let us review briefly the basic knowledge concerning secondary shock and then consider current knowledge regarding the safest and most effective methods of treatment. Figure 1 shows in outline form the salient details concerning the physiological, pathological, and etiological problems encountered in the clinical condition of shock. We are here concerned only with secondary shock, in which one or more of the following factors may be involved: loss of body water, blood plasma, or whole blood, and the effect of toxic substances released by tissue breakdown or bacteria. Factors resulting in the loss of plasma or whole blood internally or externally are usually apparent in sizing up a patient. However, the internal plasma loss that occurs because of severe dehydration or because of the release of toxic products from tissue breakdown or bacterial invasion often is not too readily discerned in the initial patient evaluation. Shock resulting from certain of these factors has been identified with specific diseases or injuries, such as: the water and plasma loss which occurs in severe dehydration and acute, severe diarrhea; plasma loss, with usually minor red cell loss, as seen in external burns, intestinal obstruction and "crush" injuries; and primary whole blood loss which is characteristic of massive hemorrhage or of tissue injury, with lesser degrees of blood loss, as seen in surgical trauma and accidental trauma. The release of toxic products may further complicate any of these situations, to the point of becoming a major factor in the clinical problem.

Presented before the Arizona Medical Association May 7, 1960, Scottsdale, Arizona.
Medical Director, Southwest Blood Banks, Inc., Phoenix, Arizona.

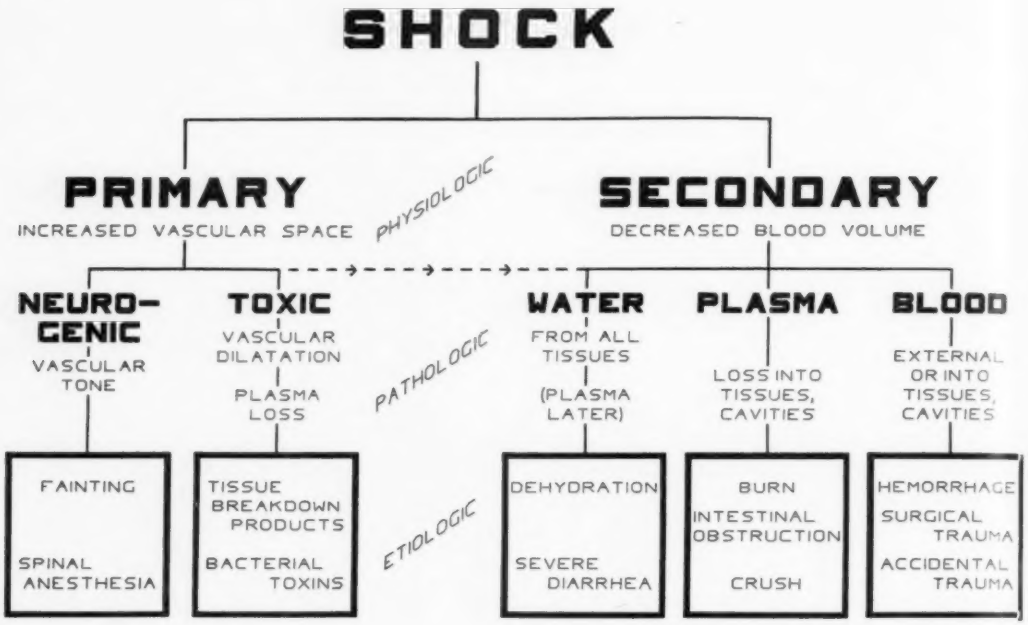

Figure 1

Secondary shock, then, is unequivocally due to a significant depletion of circulating blood volume resulting from one or more of the factors just reviewed. The chain of events which follows a significant loss of blood volume is well known. There occurs, initially, a fall in venous pressure which results in inadequate venous return to the heart and a diminishing cardiac output. This produces a falling peripheral blood pressure and eventually an inadequate circulation in spite of reflex vasoconstriction, resulting in tissue anoxia, lethargy, coma, and finally in death if the cycle cannot be interrupted and reversed. Also well known is the fact that shock becomes irreversible after a certain point, which is determined both by the severity of the decrease in blood volume and by the duration of the condition.

In considering therapy, the only effective remedy is prompt and adequate replacement of the blood volume deficit which permits the restoration of an adequate circulation for tissue metabolism. Adequate replacement is possible only through the use of an agent which remains in the circulation more or less permanently; ideally; either whole blood, blood plasma, or serum albumin, and, definitely second best, a plasma substitute. Most commonly, from a clinical point of view, the problem is primarily the result of the acute loss of whole blood, blood plasma, or, in certain situations, some of both. For convenience, these can be characterized for the purpose of this discussion as Hemorrhagic Shock and Burn Shock, and, for the moment, we will consider only the two "natural" therapeutic agents: whole blood and blood plasma.

Figure 2, Hemorrhagic Shock, and Figure 3, Burn Shock, illustrate these two situations when treated with the two agents named. In both instances, the left-hand column represents the normal. The next column shows the situation after the loss of 30% of blood volume, sufficient to result in severe secondary shock. In Figure 2, Hemorrhagic Shock, this loss is of whole blood with, initially, normal proportions of cells and plasma remaining. Hemodilution, of course, follows as the body tries to repair the damage. The last three columns show the effect of restoration of normal blood volume: in column 3, with

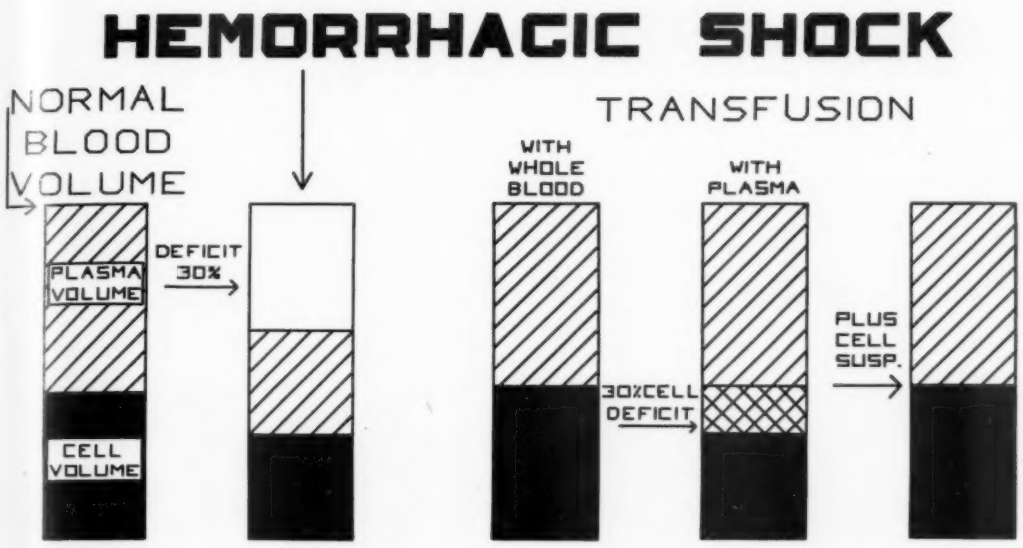

Figure 2

whole blood, which is physiologically ideal; in column 4, with plasma, which is also ideal except that an anemia then exists; and in column 5 we see that the anemia remaining after emergency plasma therapy may be corrected subsequently by the use of packed red cells. However, most commonly treatment, if begun with plasma, is completed with whole blood. It must be emphasized that the anemia existing following the immediate, life saving restoration of blood volume with plasma in hemorrhagic shock is only *most rarely* severe enough to critically impair the normal exchange of oxygen and carbon dioxide.

In Figure 3, Burn Shock, the loss is almost entirely of plasma — the slight red cell deficit which occurs is not in any way contributory to the initial shock, nor does it impair initial recovery. Parenthetically, a 30% loss in blood volume should result from about a 20-25% body surface burn. The last two columns show the effect of restoration of the normal volume: in column 3, with plasma, which is physiologically ideal — in spite of the mild anemia present after initial recovery; and in column 4, with whole blood, which is *not* physiologically ideal at all because it invariably results in a significant elevation of the hematocrit. In severe burn cases, this often produces clinically important polycythemia with increased blood viscosity.

Now we must evaluate the available therapeutic agents as to: 1) their relative safety, 2) their ready availability, and 3) their effectiveness.

A. *Whole Blood* is relatively safe if properly and carefully crossmatched, it is ordinarily reasonably available, and is entirely effective. However, the use of blood in the emergency treatment of shock is all too often considered an adequate reason to give low-titer Group O blood at once and without crossmatching. Since no available techniques will eliminate all such bloods with potentially dangerous isoagglutinins, there is some degree of danger from an incompatible ABO reaction, and there are a few such cases on record. Furthermore, the patient may have been immunized previously to some other blood factor, and this can also result in a serious incompatible reaction. The transfusion of compatible blood may also produce a blood group sensitization in the patient. This is not preventable and will cause problems in future transfusions. Finally, there is the ever-present in-

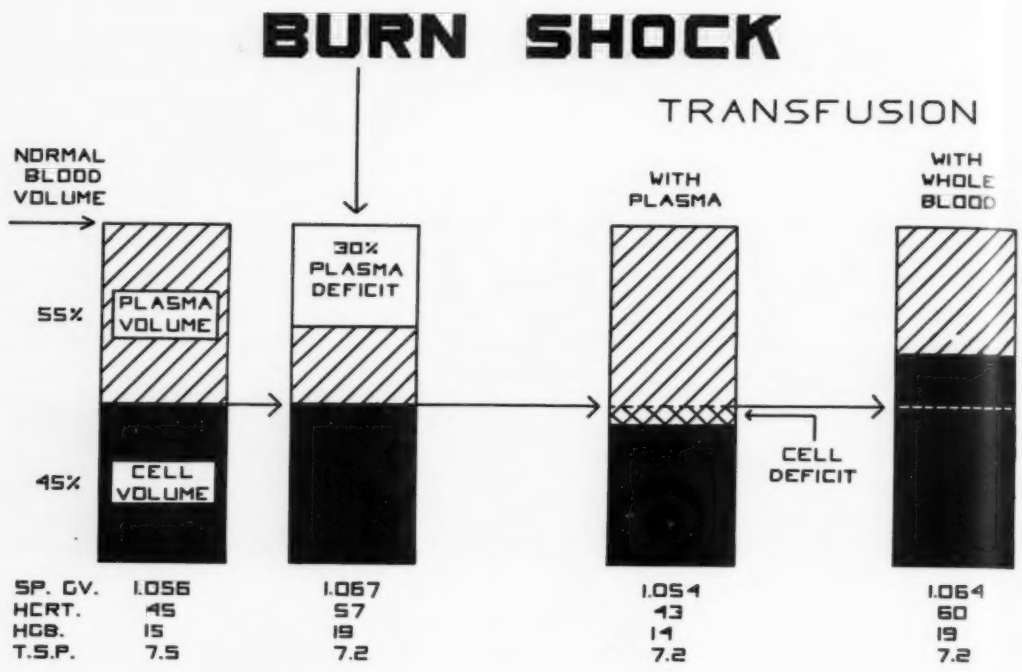

Figure 3

herent risk of transmitting viral hepatitis. As to availability, this of course depends entirely upon the facilities for storage of blood which are available at the place of treatment, together with the supply on hand. Otherwise, the blood needed must be shipped in from the closest blood bank. Whole blood, of course, will always be clinically effective, but carries with it the risks which have been presented.

B. *Blood Plasma* is much safer than whole blood, it is effective clinically in the emergency situation, and can always be immediately available. Not only is it just as satisfactory as whole blood in the emergency treatment of shock, but, in severe hemorrhagic shock, its immediate use also provides the needed time to obtain blood and carry out a careful crossmatch. Plasma does not need to be crossmatched. There are no problems of incompatibility or of sensitization of the patient. Since liquid plasma is stored at room temperature, with permissible extremes of about 50° to 100°F., it can be stocked in all areas where emergency treatment usually occurs: the emergency room, surgery, and in ambulances if desired. It could also be carried in the physician's car provided it was not allowed to remain there too long when ambient temperatures were extreme. The only deterrent to its use has been the high incidence of serum hepatitis transmission.

Plasma, of course, was widely used for shock treatment and was very effective and popular during World War II. The problem of a high incidence of the transmission of serum hepatitis from plasma had become evident at the close of the war, and its use naturally was sharply curtailed in favor of whole blood. This problem was emphasized further during the Korean conflict as it became apparent that ultraviolet irradiation, which had been experimentally effective, was not in fact killing the virus. As a result, the use of plasma essentially ceased in this country.

It has been established during the past year and one-half that the virus can be and is killed by prolonged storage of the plasma under definite time and temperature relationships. Actually, this appeared to be evident in the experience of several of the larger blood banks, including Southwest Blood Banks, as long as

six to eight years ago. Although none of these banks had been able to carry out the necessary six-month follow-up studies of patients receiving plasma, the complete absence of reports of hepatitis in these patients, together with the continuing occurrence of hepatitis following whole blood, was considered to be significant negative evidence that storage of the plasma at room temperature for one year was inactivating the virus of hepatitis. Liquid plasma available from Southwest Blood Banks has been prepared in this manner for several years. Over 5,000 units have been used since 1954 without any evidence of hepatitis or other adverse reaction in the recipients.

Now, we have adequate positive evidence of this preliminary observation and the case for "safe" plasma is complete. Hoxworth(1) has published several articles concerning his studies. His last article contains the final report of the six-month follow-up studies of patients receiving both plasma and whole blood. There were no cases of hepatitis in 317 followed recipients of plasma, while there were six cases of hepatitis in 674 followed patients receiving whole blood alone or both blood and plasma. The plasma used in the study was stored for six months at temperatures of 72° to 95° F., averaging 80.6° F. over the period of storage. The other study was reported by Sayman and Allen(2) and details similar findings. Three-hundred and five patients who received only plasma were followed for six months with no evidence of hepatitis; in 2,547 patients receiving both plasma and blood or blood only, there were 57 cases of hepatitis found during the follow-up period. The plasma was stored for six months at temperatures of 76° to 96° F., averaging 89° F., during the study. The statistical analysis which forms part of both of these studies makes the conclusion inescapable that the cases of hepatitis which were found were transmitted by whole blood and that properly treated plasma was entirely safe. Although our experience leaves us no doubt concerning the efficacy of a longer storage period at a lower temperature (one year at 72°-78° F.), we, like others, have changed to a six-month storage period at a constant temperature range of 89° to 93° F. There is no longer any room to question the safety of properly prepared plasma.

C. ***Serum Albumin*** has all the advantages in safety and effectiveness that have been described for plasma. However, it is available only from commercial firms in limited amounts, the cost is quite high, and the standard preparation is five times as concentrated osmotically as blood or plasma. Therefore, it is often necessary to give intravenous electrolytes at the same time, and its use can result in a very rapid increase in blood pressure with renewed bleeding from injured tissues.

D. Two modern ***Plasma Substitutes*** became available for trial in this country following the war. The first, Polyvinylpyrollidine, was used by the Germans during World War II with apparent success. However, subsequent studies in this country showed that over 50% of the amount injected is rather quickly stored in the body tissues, where it remains for years, while the rest is rather rapidly excreted by the kidneys. These findings resulted in the decision to employ it only as a last resort, because the effect of its long-term storage in body tissue cells is unknown. The second substitute, Dextran, was developed in Sweden and has for some time now been produced in this country and is available on the market. However, it has two very real drawbacks: 1) a rapid excretion rate through the kidneys, which begins at once, so that the dosage must be repeated at least every 10-12 hours to maintain the necessary clinical effect until sufficient time has elapsed for the patient to re-establish his own circulatory equilibrium; and, 2) if it is used in amounts exceeding 1,000 ml., which is inadequate in severe shock, the development of a bleeding tendency of long duration is quite common, due presumably to the characteristic coating of all cellular blood elements, which occurs with the use of all marcomolecular substances. In the case of Dextran, this evidently impairs an essential step in the mechanism of blood coagulation. Thus, the rating of plasma substitutes in terms of effectiveness and safety is rather poor compared to plasma.

In summary, the problems presented by secondary shock physiologically, pathologically, and etiologically have been reviewed briefly. The emergency treatment of shock with whole blood, blood plasma, serum albumin, and plasma substitutes has been discussed from the point of view of their relative safety, effectiveness, and availability.

Liquid plasma is the agent of choice for the emergency (immediate) treatment of secondary shock. Plasma is completely effective, readily available, and, now that the danger of the transmission of viral hepatitis has been controlled, the safest therapeutic agent. Serum albumin is an alternate first choice, but it is expensive and has limited availability. Whole blood is definitely second in line of preference for immediate treatment, even when the major problem is whole blood loss, since it should be used only after careful crossmatching. The use of low-titer, Group O blood without crossmatch is not recommended in the emergency treatment of shock. Unless neither plasma, albumin, or crossmatched whole blood can be made available, plasma substitutes are a poor third choice because of their relatively short period of effectiveness and their potential untoward side effects.

BIBLIOGRAPHY

1. Hoxworth, Paul I.; Haesler, Walter E., Jr.; and Smith, Harry, Jr.: The Risk of Hepatitis from Whole Blood and Plasma, Surgery, Gynecology and Obstetrics, 109: 38-42 (July) 1959.
2. Sayman, Wynn A.; Gould, Ross L.; Star, Shirley A.; and Allen, J. Garrott: Safety of Liquid Plasma – A Statistical Appraisal, JAMA, 168: 1735-1739 (Nov. 29) 1958.

DROP TECHNIQUE FOR CYTOLOGY

Modified drop technique; preparation of smears for automatic, electronic scanning. William B. Courtney, M.D., Albert W. Hilberg, M.D., Samuel C. Ingraham II, M.D., Raymond F. Kaiser, M.D., and Mary M. Bouser, R.N., Field Investigations and Demonstrations Branch, National Cancer Institute, Bethesda, Maryland, J. Nat. Cancer Inst. 25:703-711, 1960.

A modified application of the "drop technique" for cytology and its desirability for automatic, electronic scanning are discussed. Vaginal pool aspirates like all cytological specimens frequently have sparsely populated cellular material, and when the Cytoanalyzer is used, an optimum sampling of well-prepared specimens is desirable. Specimens are obtained by aspiration from the posterior vaginal fornix and suspended in 75 percent ethanol for fixation. This suspension is poured through a fine sieve and centrifuged; the supernatant is removed, the cellular material is diluted to a known density, and a known quantity of the specimen is dropped on a slide and spread over a previouly defined area with the tip of the pipette. Feulgen staining is used to obtain a nuclear stain of medium intensity with minimal staining of the cytoplasm. A cover-slip is mounted with Permount and the slide is ready for automatic scanning. Processing by this method provides an adequate control of the number, spacing, and distribution of cells in the smear without distorting their morphological characteristics.

Idiopathic Hypoparathyroidism: A Review and Case Report

Howard E. Liston, M.D.

The author presents a carefully documented case report of a relatively rare disease. Pertinent literature is well reviewed under the several sections of his discussion.

THE METABOLIC changes in the hypoparathyroid state, whether due to surgical destruction of the parathyroid glands or to an idiopathic phenomenon, are identical and are directly related to the lack of action of parathyroid hormone on calcium, phosphorus, and bone metabolism. Since parathyroid hormone affects primarily the tubular re-absorption of phosphorus, its absence produces the following effects in sequence. First, there is a decrease in urinary phosphorus excretion. This is followed by a simultaneous rise in the serum phosphorus and fall in the serum calcium and lastly, by a decrease in urinary calcium excretion. Conversely, the presence of excess parathyroid hormone produces the opposite effects; namely, hyperphosphaturia followed by hypophosphatemia, hypercalcemia, and lastly, hypercalciuria(1). Parathyroid hormone has also been shown to enhance the dissolution of bone matrix through stimulation of osteoclastic activity if decalcification of the matrix has occurred to maintain the hypercalcemic state. If the demand for additional calcium is met through dietary sources, these changes in bone do not occur(2).

The now generally accepted criteria for the diagnosis of idiopathic hypoparathyroidism were first outlined by Drake et al. (3) in 1939 as follows: a low serum calcium, a high serum inorganic phosphorus, absence of renal insufficiency, absence of intestinal dysfunction, absence of alkalosis, normal bones by x-ray, plus the presence of chronic tetany. Steinberg and Waldron(4) modified those slightly and set 7 mg.% as the minimum serum phosphorus level in patients under 16 years of age and 5 mg.% in adults.

The following case fulfilling these criteria of idiopathic hypoparathyroidism is reported.

History of Present Illness: A 35-year old white married male carpenter was first admitted to the Phoenix, Arizona Veterans Administration Hospital March 14, 1959, for evaluation of a convulsive disorder. During the summer of 1957 the patient began to notice periods of generalized weaknesses, emotional irritability, anorexia with occasional vomiting, and muscle cramps in the arms, legs, and feet. He continued working even though the symptoms became more severe and several months later noticed occasional drawing of the hands. On January 25, 1959, he had an epileptiform type seizure lasting several minutes, manifested by rhythmic, generalized muscular contractions, and loss of consciousness. When seen by a private physician within an hour, the patient was in a typical post-ictal state and on examination an early lenticular opacity was noted as well as a suggestion of papilledema. The patient was then referred to a neurosurgeon for evaluation. While hospitalized elsewhere for study, he had two generalized convulsions. The neurological examination was

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From the Medical Service, Veterans Administration Hospital, Phoenix, Arizona.

reported as negative except for slight atrophy of the right optic disk and some blurring of the left disk. Routine urinalysis, blood count, blood sugar, and chest and skull x-rays were normal. An electro-encephalogram was reported to show a mild diffuse dysrhythmia and a lumbar pneumoencephalogram was negative. There was a spinal fluid protein of 76 mg.%.

On discharge from the hospital early in February, the patient was placed on phenobarbital and sodium dilantin. After approximately three weeks, he developed a macular scaly rash over the trunk, face, and hands which persisted after a change of medication. With anti-convulsive drugs, the patient had no further seizures but did show increasing drowsiness, lethargy, and at times mental disorientation. There was a rapid loss of vision to the degree of light perception. The weakness, muscle cramps, anorexia, and vomiting persisted and by the time of admission there had been a total weight loss of 20 pounds.

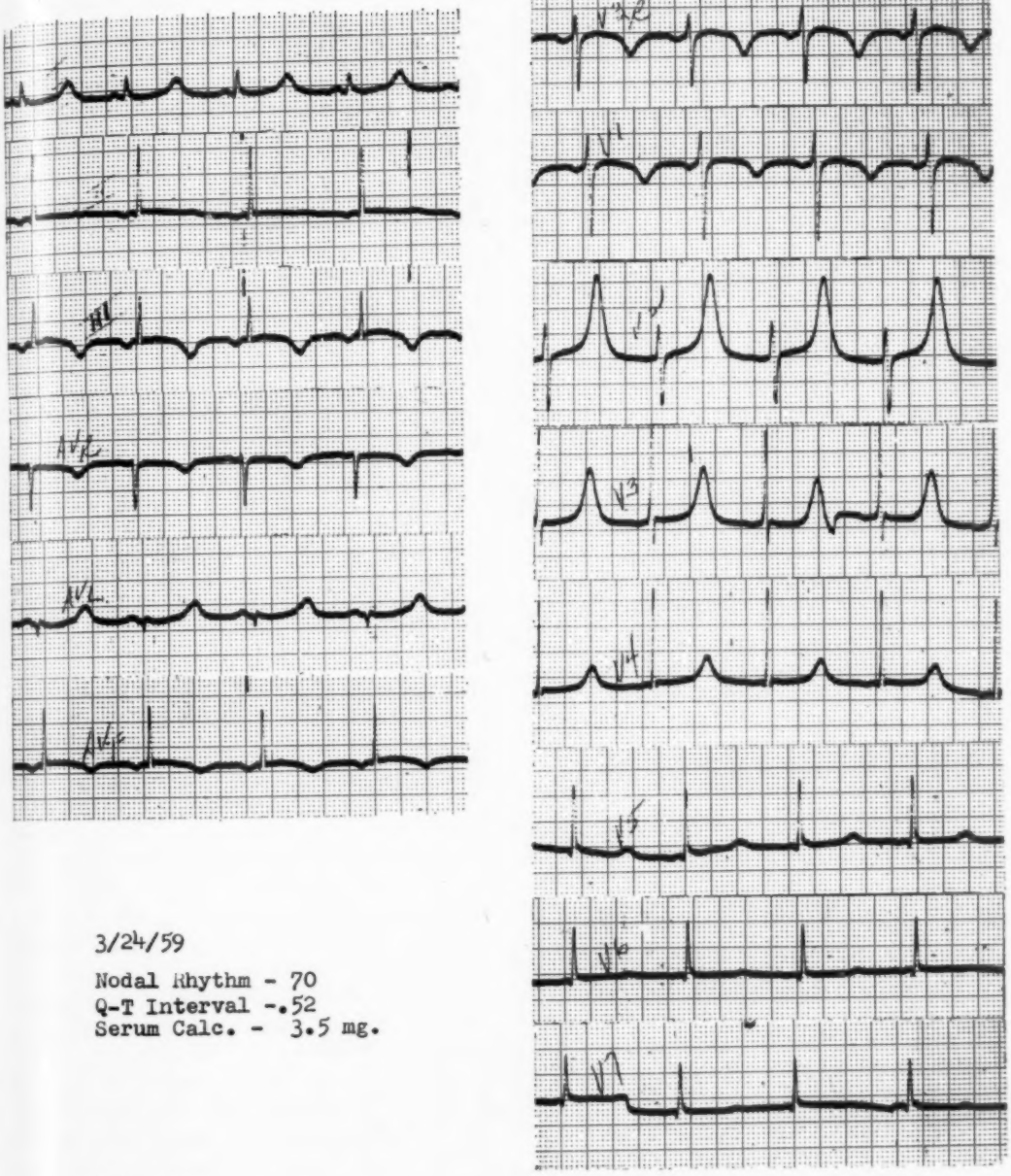
Physical Examination: Height 5'9", weight 144 pounds, temperature 98.6, pulse 80, blood pressure 120/88 mm. mercury. The patient was a well-developed, somewhat poorly nourished white male who appeared chronically ill, apathetic, and dejected. He answered questions slowly although he appared to be fairly well oriented. Eye examination revealed bilateral lenticular opacities of an advanced degree, and the fundi could not be visualized. On slit lamp examination by the ophthalmologist, the lenticular opacities were described as irregular cortical and nuclear cataracts, having the appearance of "cracked ice." The thyroid gland was not palpable and there was no cervical adenopathy. Examination of the heart and lungs revealed normal findings. The abdomen was scaphoid, nontender, and no masses were palpable. The skin was generally dry, and over the dorsum of the hands, wrists, and trunk there was a faint, macular, scaly rash. The neurological examination disclosed no abnormalities except for a positive Trousseau sign. The Chvostek sign was negative.

Laboratory Data: White blood count was 8,700, with a normal differential. Hemoglobin was 14.6 gms., hematocrit 43%, and sedimentation rate 8 mm/hour corrected. Urinalysis was normal, and the urine Sulkowitch reaction showed a light precipitate. Blood serology was negative. Fasting blood sugar, blood urea nitrogen, serum sodium, potassium, chloride, and CO_2 were normal. Serum calcium was 3.5 mg.% and serum phosphorus was 8.9 mg.%. Total serum protein was 8.0 gm.% with a 1.5:1 albumin-globulin ratio. Alkaline phosphatase was 6.6 Bodansky units. Spinal fluid obtained under a pressure of 140 mm. of water was clear and colorless, with a cell count of 2 lymphocytes, and a protein of 72 mg.%. Chest x-ray, skull series, and a survey of the long bones showed no abnormalities. The electrocardiogram showed a nodal rhythm, rate of 72, and the QT interval prolonged at .52 seconds (fig. 1).

Hospital Course: The presence of rapidly developing cataracts and a recent convulsive disorder in this patient prompted investigation of the serum calcium and phosphorus levels. Repeated studies confirmed a severe hypocalcemia ranging from 3.5 to 4 mg.% and a hyperphosphatemia ranging from 7.5 to 9.0 mg.%. These abnormalities, in conjunction with tetany and tetanic equivalents, the absence of intestinal or renal dysfunction, the absence of alkalosis, plus the presence of normal bones by x-ray provided the necessary data for the diagnosis of a hypoparathyroid state. Since there had been no previous surgery to the thyroid gland, this was considered to be a case of idiopathic hypoparathyroidism. To rule out the possibility of pseudohypoparathyroidism, even though there were no clinical features of that disease, an Ellsworth-Howard test was performed. This resulted in a three-fold increase in the hourly urinary phosphorus excretion over control levels following the intravenous administration of 200 units of parathyroid extract (fig. 2).

The results of treatment initiated with Hytakerol and calcium chloride with follow-up serum calcium and phosphorus determinations, and quantitative urinary calcium and phosphorus excretions over a one year period are shown in figure 3. The daily urinary Sulkowitch test was consistently positive throughout with a moderate to heavy precipitate. Additional treatment consisted of a low phosphorus diet and the administration of aluminum hydroxide gel before meals.

During the first 10 days of treatment the patient had 2 mild convulsive seizures but other-



3/24/59

Nodal Rhythm - 70
Q-T Interval -.52
Serum Calc. - 3.5 mg.

Fig. 1.

wise showed subjective and objective improvement even though the serum calcium remained low. A striking change was in the patient's mental status with the disappearance of lethargy. His appetite improved, there was no further anorexia or vomiting, and the skin rash cleared. The Trousseau sign was persistently positive and the Chvostek sign occasionally positive until the end of the first month when the serum calcium reached 5.5 mg.%. After that, both remained negative, there were no further muscle cramps, and the patient was ambulant about the ward within the limits of his extremely impaired vision. The nodal rhythm had reverted in one week to a sinus rhythm although the QT interval remained prolonged at .5 seconds. A

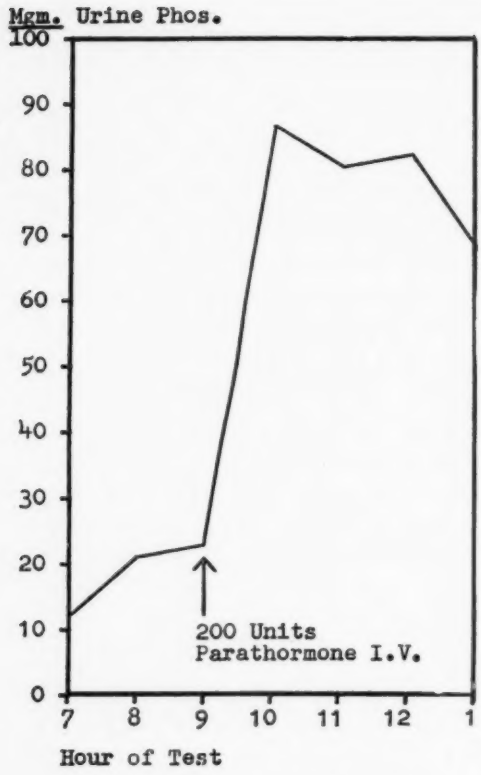


Fig. 2. ELLSWORTH - HOWARD TEST

month later, with a serum calcium level of 5.5 mg.%, the QT interval was .44 seconds, and when the serum calcium reached 7.8 mg.%, the QT interval became normal (fig. 4).

At the end of the first month, the Hytakerol was changed from capsules to the oil solution in the same dose of 3.75 mg. daily. Also, calcium gluconate in the dose of 5 gm. four times daily was substituted for the calcium chloride. At the end of the second month the dose of Hytakerol was increased to 5.0 mg. daily since control was still inadequate. The patient remained asymptomatic, and at that time extraction of the cataract of the right eye was carried out without difficulty. He was subsequently fitted with a temporary lens and sent home to continue his medication program. During the period at home, blood was sent to the hospital every two weeks for calcium and phosphorus determinations, and the patient kept a record of daily Sulkowitch reactions.

On his return to the hospital late in July 1959, four months after institution of treatment, the patient reported a further increase in strength and a feeling of well-being. The only positive physical finding, except the left lenticular opacity, was transverse ridging of the nails. This was not present initially, and as the nails grew out these changes did not reappear. Because of a fall in the serum calcium to 7.0 mg.% and a rise of the phosphorus to 9.6 mg.%, the dosage of Hytakerol was further increased to 7.5 mg. daily. On August 11, 1959, the patient underwent a left cataract extraction again without complications. Permanent glasses were fitted correcting the vision in both eyes to 20/30. Except for occasional visits to the hospital the patient remained home, continued to feel perfectly well, and returned to work.

Even after continuing Hytakerol in the dose of 7.5 mg. daily and calcium gluconate in the dose of 20 gm. daily, the serum calcium, except on one occasion, did not go above 8.0 mg.%, and the serum phosphorus did not go below 7.0 mg%. Also, the urinary calcium excretion remained elevated and the phosphorus excretion depressed. At the end of seven months, it was decided to change to treatment with Vitamin D. Initially this was given in the dose of 150,000 units daily and the Hytakerol in a reduced amount of 3.75 mg. daily. After four weeks the Hytakerol was discontinued, and the vitamin D was increased to 300,000 units daily. The calcium gluconate was also discontinued and 8.0 gm. daily of calcium chloride substituted. Following that change, both the serum calcium and phosphorus returned to normal levels and remained so. The vitamin D was gradually reduced to a maintenance of 150,000 units daily and the calcium chloride to a maintenance of 4.0 gm. daily. On his occasional visits to the hospital, the patient stated that he felt better mentally and physically than he had for at least two years, had continued full time work, and had gained 15 pounds of weight.

DISCUSSION

Etiology and Incidence. The etiology of idiopathic hypoparathyroidism is not known. In one autopsied case all four of the parathyroid glands appeared grossly normal; however, microscopically the cell parenchyma was replaced by fat(3). In two others reported, no evidence of parathyroid tissue could be found(5, 6).

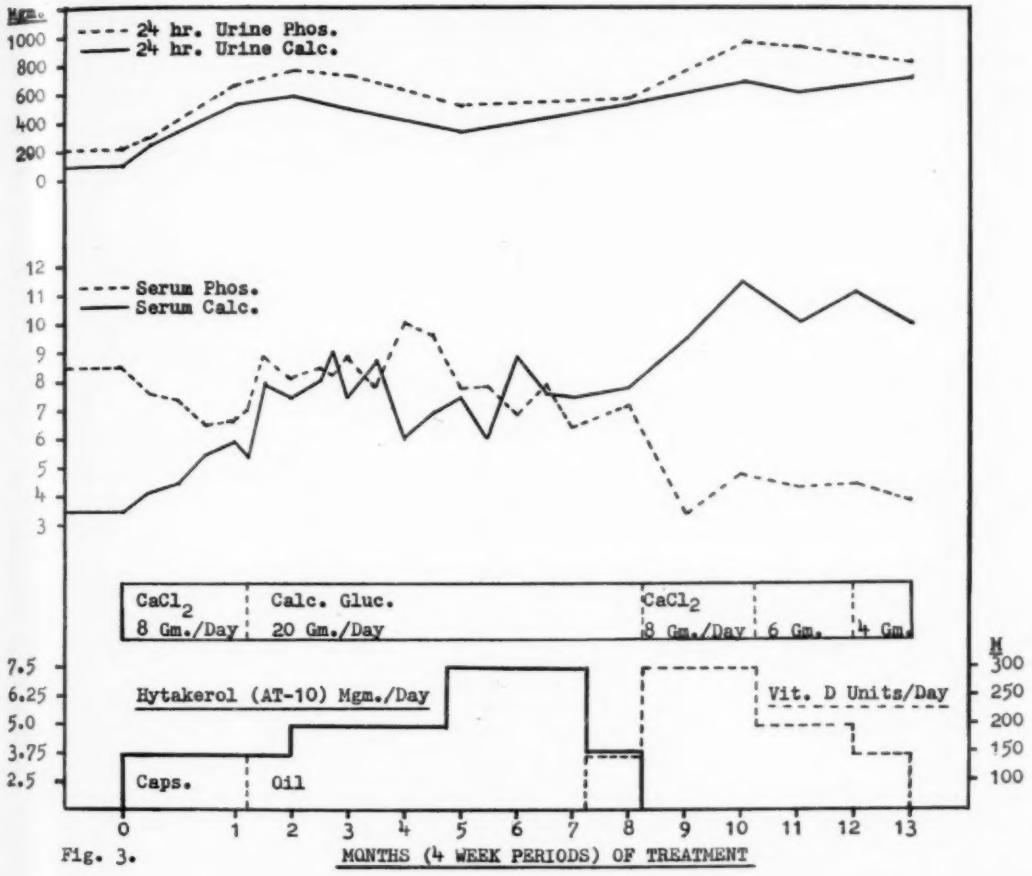
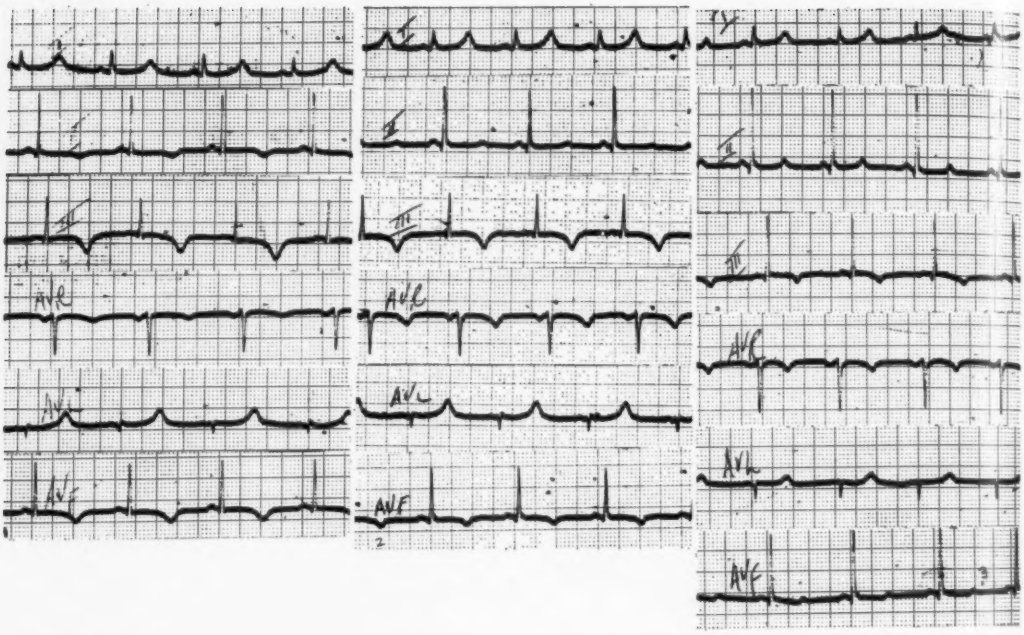


Fig. 3.

This is apparently an extremely rare disease. Drake et al.(3) reported six cases by 1939 and found only eight more in the literature which satisfied their criteria. Lachman(7) in 1941 collected 70 cases from the world literature which included 20 new cases from the various Danish hospitals. Steinberg and Waldron(4); however, in their intensive review in 1952 accepted only 30 of Lachman's cases and a total of 52 from the world literature adding a new case of their own. Dietrich(8) in 1952 stated that there had been 113 cases reported but pointed out that all were not positively substantiated by records. Bronsky et al.(9), in a critical review of the literature up to July, 1957, analyzed the reported cases to clarify the relationship between idiopathic and pseudohypoparathyroidism. By excluding all cases in which this differentiation could not be made, many cases of hypoparathyroidism of unknown etiology were not listed. They reported 50 cases of idiopathic hypoparathyroidism and 40 cases of pseudohypoparathyroidism. In their series, the average age of onset in the idiopathic cases was 17 years with the largest percentage in the first decade, and the ratio of males to females was equal. Steinberg and Waldron(4) reported a similar age and sex distribution.

Albright et al.(10) in 1942 reported on three cases of pseudohypoparathyroidism and, in addition to the criteria previously given, set forth these distinguishing features: the patients tend to have round facies, short and thick-set statures, and bradydactylia. They exhibit a lack of renal response to the action of parathyroid hormone which is the basis of the Ellsworth-Howard test(11). A good response generally considered is an increase in the hourly excretion of phosphorus by either 40 mg. or 250% over control



3/31/59	4/21/59	5/7/59
Sinus Rhythm - 68	Sinus Rhythm - 72	Sinus Rhythm - 75
Q-T Interval -.50	Q-T Interval -.44	Q-T Interval -.36
Serum Calc. - 4.0 mg.	Serum Calc. - 5.5 mg.	Serum Calc. - 7.8 mg.

Fig. 4.

levels. Bronsky et al.(9) pointed out that in accepting the Ellsworth-Howard test as the only evidence of pseudohypoparathyroidism, the use of a potent extract should be demonstrated on adequate controls. It has been shown; however, that resistance to the action of parathyroid hormone in that disease is not always complete(12). It has further been suggested by others that the diagnosis should not be made on that test alone(13).

Clinical Manifestations. The prime clinical manifestation of the hypopaparthyroid state is due to a reduction in the serum level of ionized calcium and the development of tetany, manifesting as carpopedal spasm(1). This is the most common symptom in the reported series, being given as 78%(4), 70%(14), 76%(9) and 64 (8). The incidence of tetanic equivalents, defined as muscle cramps, numbness, paresthesias or laryngeal stridor is somewhat more varied. Whether a patient will exhibit tetanic equivalents or frank tetany has been attributed to the severity of the disease in the individual case(1).

The second most commonly reported manifestation is recurrent generalized convulsions. The incidence again varies with the reported series and is given as 52%. (4), 42% (14), and 70% (9). A significant number of patients have been diagnosed as suffering from idiopathic epilepsy for varying lengths of time before the correct diagnosis of a hypoparathyroid state was made. Illustrative of this was a case with a 20 year history reported by Treusch(15). There may also be many varieties of motor epilepsy, including petit mal attacks(16, 17). Harrison,(18) in discussing the problem of idiopathic hypoparathydroidism in childhood, reported six cases with epilepsy as the most common presenting problem and interestingly enough found tetany in only one of the six patients.

The third most common symptom and most difficult to evaluate in the individual case is the presence of some type of mental disorder. This

may vary from a frank psychosis with marked mental deterioration to a simple irritability or emotional liability(19, 20, 21). Additional symptoms, which are listed as occurring but of a lesser frequency, are such gastrointestinal disturbances as constipation, diarrhea, nausea, and vomiting(4, 8, 9).

A positive Chvostek or Trousseau sign was cited by Steinberg and Wadron(4) as being present in every case in which it was sought. This would be expected since both tests are a means of eliciting latent tetany. Cataracts have been found in roughly half of the cases reported (4, 7, 9). The typical lens changes are described as consisting of numerous small discrete opacities layered in the cortex, and separated from the capsule by a clear zone. Some of these are small, white, and punctate and sometimes are aggregated into larger flakes. Ultimately, the entire lens becomes uniformly opaque(22). Trophic changes are the third most commonly observed abnormal physical finding. These include a dry scaly skin, transverse ridging of the nails, and sparse, dry, brittle hair. Monilial infections involving the skin and mouth were also found but were less common than the ectodermal changes alone(4, 9). The monilial infections of the nails are quite resistant to treatment, but the nail changes themselves disappear after the serum calcium returns to normal as do the skin and hair changes(23). Some type of dental defect occurs with about the same frequency as the trophic changes(9). Aplasia or hypoplasia of the teeth is seen if the hypoparathyroid state occurs prior to their final formation(1).

Papilledema was found by Steinberg and Waldron(4) in 13.5% of the cases they reviewed, and in those seven cases, the spinal fluid pressure was elevated in three. Bronsky et al.(9) found papilledema in 18% and stated that the spinal fluid pressure was frequently elevated. This has been explained on the basis of cerebral edema(24).

Laboratory Findings. In addition to the hypocalcemia and hyperphosphatemia, other abnormal laboratory findings may be present. The electrocardiogram shows a prolonged QT interval with return to normal after the hypocalcemia is corrected(9). Calcification of the basal ganglia is not uncommon(4,9). Camp(25), in a review of this subject, found 12 cases of calcification of the basal ganglia in which there was clinical evidence of parathyroid insufficiency and tetany. He did not consider the calcification itself to be the cause of the convulsions or mental abnormalities as it occurs in patients with encephalitis, toxoplasmosis, and congenitally acquired mental deficiency. Abnormal bone calcification is not common but occasionally occurs in the hypoparathyroid state and involves an increase in bone density(1).

Diagnosis. The criteria for the diagnosis of idiopathic hypoparathyroidism have been listed. Since these patients usually have long-standing manifestations which might not suggest the diagnosis, there are some situations that should call for calcium and phosphorus studies. These would include all patients exhibiting tetany or tetanic equivalents in the absence of alkalosis, all epileptic patients, those patients showing mental changes not on an obvious organic basis, and especially the young patient with cataracts. The isolated finding of a prolonged QT interval or calcification of the basal ganglia should also be studied.

Treatment. Theoretically, replacement therapy in idiopathic hypoparathyroidism with parathyroid hormone would seem ideal. However, because of variabilities in the potency of the preparations, the development of resistance to its action over prolonged periods of use, and its expense, it is neither used nor recommended. Vitamin D or Dihydrotachysterol (AT-10) is effective and is the treatment of choice in this condition(1,2,4,9). Besides the calcium absorbing and phosphorus diuresing effect of vitamin D and like compounds, a third possible action has been postulated by Henneman(26) to be the increased intestinal absorption of nitrogen, sodium, potassium, and magnesium. Exclusion of milk and milk products in the diet and the administration of aluminum hydroxide gel are also recommended, and supplemental calcium salts are usually necessary(1,2).

The dosage of these various agents must be individualized depending on the response of the patient. The Sulkowitch test, used to determine semi-quantitatively the amount of calcium in

the urine, has long been advocated as the best method to determine the dosage of either sterol (1,4). It has been shown, however, that hypercalciuria can occur in the presence of hypocalcemia in patients treated with vitamin D, Dihydrotachysterol, or both(1,27). Litvack et al.(28) found this situation in 8 of 12 patients with surgical hypoparathyroidism, in 2 of 3 patients with idiopathic hypoparathyroidism, but not in 6 patients with pseudohypoparathyroidism. They postulate that this is due to still another action of vitamin D; namely, a reduction in the tubular reabsorption of calcium. Therefore, frequent determinations of the serum calcium are imperative to avoid the danger of either over-treatment or under-treatment(27,28,29). In the situation of hypocalcemic hypercalciuria, it is considered preferable to maintain the serum calcium at or near normal levels and to rely on a large urinary volume to prevent renal complications.

Thyroid extract has been shown to raise the serum calcium in patients with either idiopathic or surgical hypoparathyroidism(30,31). Also, prolonged treatment with Benemid has been accompanied by a reduction in hyperphosphatemi,(32). Parathyroid transplant was reported in one case to have been successful after a lag of two years(33). Adequate treatment will correct the frequently incapacitating manifestations of the hypoparathyroid state. Only one case was encountered which showed some evidence of regression of cataracts under therapy(34). The prognosis for life; however, even in the untreated patient, is good. Of the seven deaths in the cases reviewed by Bronsky et al.(9) four were due to Addison's Disease and death directly due to tetany or convulsions was not encountered.

In comparing the features of this case of idiopathic hypoparathyroidism with others reported, tetany and tetanic equivalents, anorexia, mental changes, trophic changes, convulsions, and cataracts are all common manifestations. Somewhat unusual was the very rapid development of the cataracts and the late appearance of transverse ridging of the nails. A nodal rhythm, in conjunction with a prolonged QT interval, was not encountered in the cases reviewed. The clinical improvement seen in this patient with below normal serum calcium levels has been described in others(28).

Two unusual features of this case occurred in the response to treatment. One was a persistent hypocalcemic hypercalciuria. This can possibly be explained on the additional action of vitamin D, that of decreased tubular reabsorption of calcium, suggested by Litvack et al.(28). The other was an incomplete chemical response to treatment with Hytakerol, even though it was given in excess of the average recommended dose(1, 2), and the complete response to treatment with vitamin D. A recent investigation by Terepka and Chen(35) may explain this discrepancy. They compared the physiological and biochemical properties of crystalline Dihydrotachysterol (AT-10) to Hytakerol. On calcium and phosphorus mobilizing activity in rats, it was found that Hytakerol had significantly less effect than pure crystalline AT-10. By utilizing mixed paper chromatograms, the AT-10-like ultraviolet absorbing material in Hytakerol was shown to be chromatographically different from crystalline AT-10. It was concluded by the authors that commercially available Hytakerol did not contain crystalline AT-10, but an isomer of lower potency. On this basis and on the experience in this patient, vitamin D would be the sterol of choice to use in treatment of the hypoparathyroid state.

SUMMARY

1. An additional case of idiopathic hypoparathyroidism with a one year followup is presented. Unusual features were persistent hypocalcemic hypercalciuria and apparent AT-10 resistance for which explanations are offered.

2. The features of the disease are reviewed and suggestions made which might lead to its more frequent or at least earlier diagnosis.

BIBLIOGRAPHY

1. Albright, F., and Reifenstein, E. C.: Parathyroid glands and metabolic bone disease, Williams and Wilkins Co., 1948.

2. Harrison et al, Principles of Internal Medicine, McGraw-Hill Book Co., Inc., 3rd Edition, 1958.

3. Drake, T. G., Albright, F., Bauer, W., and Castleman, B.: Chronic idiopathic hypoparathyroidism; report of six cases with autopsy findings in one, Ann. Int. Med. 12:1751, 1939.

4. Steinberg H., and Waldron, B. R.: Idiopathic hypoparathyroidism: analysis of 52 cases, including report of a new case, Medicine 31:133, 1952.

5. Cantarow, A., Stewart, H. L., and Morgan, D. R.: Chronic idiopathic hypoparathyroid tetany, Endocrinology, 24:556, 1939.

6. Leanord, M.F.: Chronic idiopathic hypoparathyroidism with superimposed Addison's Disease in a child, J. Clin. Endocrinol., 6:493, 1946.

7. Lachman, A.: Hypoparathyroidism in Denmark; clinical study, Acta Med. Scandinav., supp. 121:1, 1941.

8. Dietrich, F. S. Rice, M. L., and Luton, E. F.: Clinical manifestations of idiopathic hypoparathyroidism: report of one case, Ann. Int. Med., 37:1052, 1952.

9. Bronsky, D., Kushner, D. S., Dubin, A., and Snapper, I.: Idiopathic hypoparathyroidism and pseudohypoparathyroidism; case reports and review of the literature, Medicine, 37:317, 1958.

10. Albright, F., Burnett, C. H., Smith, P. H., and Parson, W.: Pseudohypoparathyroidism — example of "Seabright-Bantam syndrome;" report of 3 cases, Endocrinology, 30:922, 1942.

11. Ellsworth, R., and Howard, J. E.: Studies on the psysiology of the parathyroid glands. VII. Some responses of normal human kidneys and blood to intravenous parathyroid extract, Bull., Johns Hopkins Hosp., 55:296, 1934.

12. Elrick, H., Albright, F., Bartter F. C., Forbus, A. P., and Reeves, J. D.: Further studies on pseudohypoparathyroidism: report of 4 new cases, Acta Endocrinol., 5:199, 1950.

13. Bergstrand, C. G.: Ekengren, R. F., and Huggert, A.: Pseudohypoparathyroidism: familial incidence and comparison with idiopathic hypoparathyroidism, Acta Endocrinol., 29:201, 1958.

14. DeMowbray, R. R.: Discussion of the physiology and clinical disorders of the parathyroid glands, hypoparathyroidism, Proc. Royal Soc. Medicine, 46:296, 1953.

15. Treusch J. V.: Idiopathic hypoparathyroidism: report of an unusual case, Ann. Int. Med., 46:956, 1957.

16. Robinson, P. K., Carmichael, E. A., and Cumings, J. N.: Idiopathic hypoparathyroidism; study of 3 cases, Quart. J. Med., 23:383, 1954.

17. Willison, R. G., and Whitty, C. W. M.: Parathyroid deficiency presenting as epilepsy, Brit. Med. Jour., 5022:802, 1957.

18. Harrison, H. E.: Symposium on endocrinology: idiopathic hypoparathyroidism, Pediatrics, 17:442 1956.

19. Yim, B. J. B., and Jaenike, J. R.: Idiopathic hypoparathyroidism presenting as a psychosis and complicated by chlorpromazine jaundice, Am. J. M., 25:478, 1958.

20. Naef, R. W., and Adle, E. H.: Idiopathic hypoparathyroidism: report of a case, Ann. Int. Med., 50:495, 1959.

21. Green, J. A., and Swanson, L. W.: Psychosis in hypoparathyroidism with a report of 5 cases, Ann. Int. Med., 14:1233, 1941.

22. Haft A. D.: Idiopathic hypoparathyroidism: report of 4 cases, A.M.A. Arch. Ophth., 50:455, 1953.

23. Stutphin, A., Albright, F., and McCune, P. J.: Five cases with three in siblings of idiopathic hypoparathyroidism, associated with moniliasis, J. Clin. Endocrinol., 3:635, 1943.

24. Kerr, G. D.: Papilloedema and fits in hypoparathyroidism, Quart. J. M., 86:243, 1953.

25. Camp, J. D.: Symmetrical calcification of the cerebral basal ganglia; its roentgenologic significance in the diagnosis of parathyroid insufficiency, Radiology 49:568, 1947.

26. Henneman P. H., Dempsey, S. F., Carroll, E. L. and Albright, F.: The cause of hypercalciuria in sarcoid and its treatment with cortisone and sodium phosphate, J. Clin. Investigation, 35:1229, 1956.

27. Leifer, E., and Hollander, W.: Idiopathic hypoparathyroidism and chronic adrenal insufficiency: a case report, J. Clin. Endocrinol. and Metabolism, 13:1264, 1953.

28. Litvack, J., Moldawer, M. P., Forbes, A. P., and Henneman, P. H.: Hypocalcemic hypercalciuria during vitamin D and dihydrotachysterol therapy of hypoparathyroidism, J. Clin. Endocrinol. and Metabolism, 18:246 1958.

29. Symon, L., and Bett, I. M.: Idiopathic hypoparathyroidism with normal urinary calcium, Brit. M. J. 1:1451, 1959.

30. Aub, J. C., Albright, F., Bauer, W., and Rossmeish, E.: Studies on calcium and phosphorus metabolism: VI. In hypoparathyroidism and chronic steatorrhea with tetany, with special consideration of the therapeutic effect of thyroid, J. Clin. Investigation, 11:221, 1932.

31. Rothenberg, S., and Redleaf P. D.: Hypoparathyroidism and recurrent hyperthyroidism, A.M.A. Arch. Int. Med., 104:783, 1959.

32. Paseale, L. R., Dubin, A., and Hoffman, W. S.: Influence of benemid on urinary excretion of phosphate in hypoparathyroidism, Metabolism, 3:462, 1954.

33. Akers, D. R., Binkley, E. L., and Miller, A. P.: Homotransplantation of parathyroid gland in idiopathic hypoparathyroidism, Pediatrics, 21:974 1958.

34. Jordan, A., and Kelsall, A. R.: Observation in a case of idiopathic hypoparathyroidism, A.M.A. Arch. Int. Med., 87:242, 1951.

35. Terepka, A. R., and Chen. P. S.: A physiological and biochemical comparison of crystalline dihydrotachysterol (AT-10) with Hytakerol, Abstract, program of the Fifty-Second Annual Meeting, American Society for Clinical Investigation, 1960.

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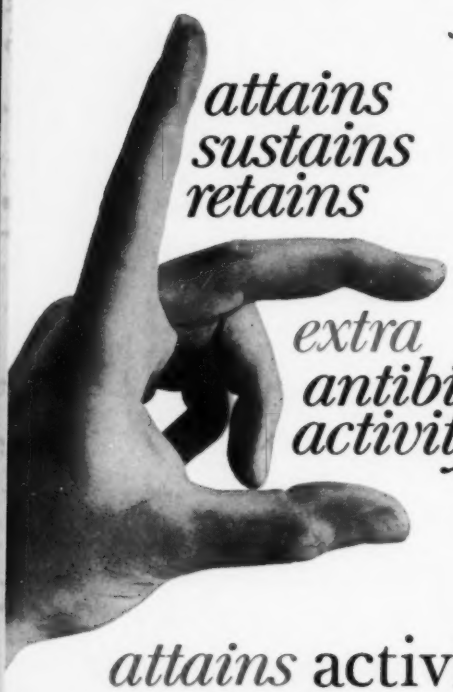

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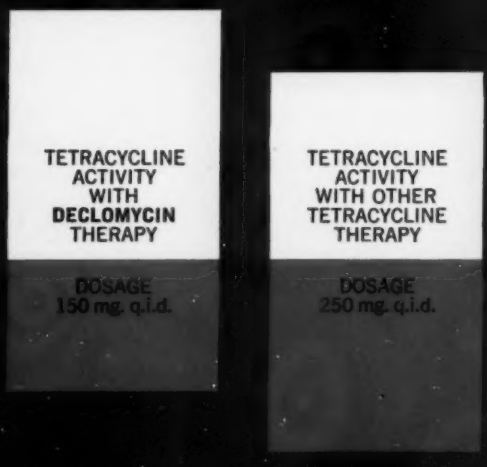
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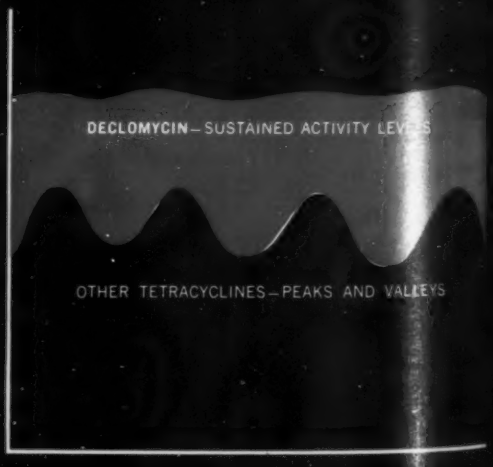

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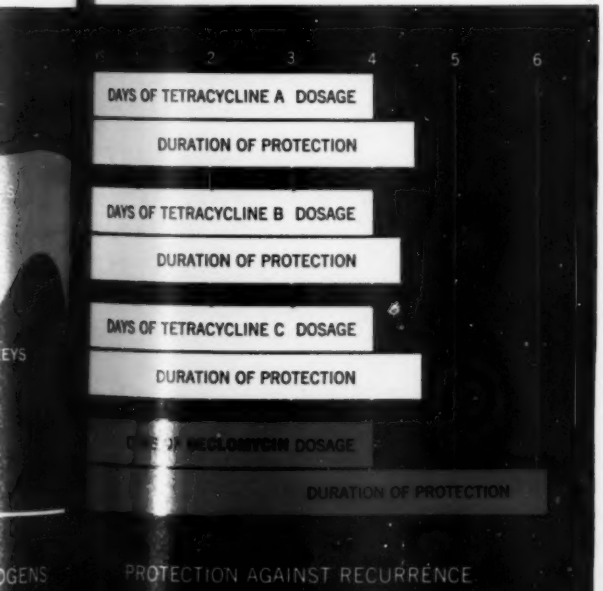

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An Effective Treatment of Verrucae

L. C. Sutherland, M.D.

Mark W. Westervelt, M.D.

We are convinced oxytetracycline is toxic to the verrucal virus. We do not feel the results are simply a result of chemical irritation. The advantages are little or no scar tissue with no residual discomfort, less tedious and traumatic treatment for the patient and physician, and an effective therapeutic procedure that obviates recurrences of the tumor.

FROM our experience it appears oxytetracycline topical ointment will cause the resolution of verrucae. This procedure is prolonged and tedious where hyperkeratosis and acanthosis exist as in plantar warts. Filiform or flat warts respond more readily. Because of this we have used injectable oxytetracycline solution in the treatment of all types of warts or verrucae.

METHOD:

For the past four months we have been injecting plantar, flat, and filiform verrucae at the Student Health Service. We use the 100 mgm/2 cc intramuscular solution of oxytetracycline. For a moderate size wart 0.5 cm. in diameter, we use 0.5 cc. of oxytetracycline solution. The wart area is cleansed and infiltrated with procaine 1% or 2%, then the oxytetracycline injected. Insertion of the needle is centrally through the base, depositing solution beneath the base. Then more is injected into the base itself. Lateral quadrant injections are of use for large or plantar type warts.

RESULTS:

Adequate infiltration will destroy verrucae. In the presence of hyperkeratosis and acanthosis, repeat injection may be necessary. Adequate injection will destroy plantar warts at initial treatment. Filiform or flat warts atrophy and desquamate in four to seven days. Plantar warts atrophy and gradually separate over a period of two to four weeks. Occasionally at the end of two or three weeks beneath the plantar wart a collection of fluid develops. If the area is opened at this time, pink to red young layers of skin are visible at the base area. The overlying callus may be removed if desired; actually it is preferable to allow spontaneous desquamation. More often plantar warts simply atrophy and desquamate until by the third or fourth week no reaction or scar is visible.

We have treated approximately forty verrucae without recurrence by this method. The following are a few cases treated by the ointment and injection.

CASES:

Case 1. The first one treated was in December 1953. A 17-year-old college student was seen for acute tonsillitis. Also he complained of a large filiform verruca of the lateral aspect of the right foot. It was 10 mm. in diameter. An oxytetracycline dressing was applied and prescribed twice daily. On recheck of the patient four days later, this verruca had completely resolved with-

Student Health Service, Arizona State University – April 25, 1960.

out scar formation or reaction. No recurrence occurred during the 6 month follow-up.

Case 2. A white male, age 68 years. Infected verruca of left scapula region. One week of infection with erythema about 5 mm. around mole. Purulent drainage present. Hot Epsom salt compresses q.i.d. followed by oxytetracycline ointment dressings. Lesion healed and verruca disappeared in one week. No recurrence after three months.

Case 3. A 20-year-old white female college student was seen 4/1/60 complaining of a painful plantar wart of the central area of the right heel. The wart was 5 mm. in diameter with surrounding callus of 5 mm. Following procaine anesthesia 1 cc. of oxytetracycline solution was injected into the base and beneath. Also lateral quadrant injections. On 4/7/60 the wart was pale and appeared non-visible. 4/25/60 the area was normal. Slight desquamation was evident but no scar or tumor was present.

Case 4. Plantar warts of 3rd finger right hand in a 19-year-old college student. Two verrucae 3 mm. in diameter injected after procaine anesthesia with oxytetracycline solution. In two weks crusts of callus and wart debrided. Base revealed young skin layers without scarring or tumor evident. No reccurrence in 6 month follow-up.

Case 5. On 1/21/60 a 19-year-old white male college student was seen complaining of a painful plantar wart of the left foot. The wart was 6 mm. in diameter with surrounding callus of 5 mm. It was located over the 2nd metatarsal head. After preparation, 0.7 cc oxytetracycline solution was injected into the base of the wart and beneath. On 1/27/60 the wart appeared as a crust only. This was excised and pink unscarred skin covered the base. No visible scar was present. No recurrence to the present.

Case 6. A 19-year-old college student was seen during entrance examination 9/28/59. She was recovering from excision of a large filiform-plantar type verruca of the large toe right foot. The area was under the lateral nail extending into the nail base. Finally healing occurred and recurrence became evident. The recurrence was 10 x 12mm very tender and painful. On 12/2/59 the verruca was again excised by a local M.D. She returned to the clinic for dressings. The area healed and developed a recurrence 8 x 10 mm. arising from the nail bed. On 2/16/60 injection of oxytetracycline was done; pain and soreness were relieved by this injection. A crust was removed 3/17/60 revealing a thickened scarred nail bed. The toe in the area has scar tissue from two previous surgical efforts. Probing and trimming of nail under procaine anesthesia failed to show any evidence of recurrence.

SUMMARY:

This is a proposed treatment for all verrucae caused by the wart virus. Adequate injection of oxytetracycline into a verruca will cause its resolution. This may require more than one treatment, particularly in warts accompanied by callus formation such as plantar warts. In old recurrent cases or large involved areas, multiple internal injections are indicated. Also partial debridement of callus at times is of advantage to improve infiltration. Paradoxically a soft flat wart may need reinjection because the oxytetracycline is absorbed rapidly. The majority of cases will respond to initial injection if care is taken to properly infiltrate the area. The idea that suggestion is important in verrucal therapy seems irrational, and we do not feel it it a factor in treatment. This treatment is of interest since it is an answer to verrucae treatment and a case of viral tumor destroyed by an antibiotic.

REVIEW OF LITERATURE:

There are many methods described for the therapy of verrucae. B. Soloman 2:525—1951 describes treating two cases with Aureomycin ointment. Results were good but treatment was greatly prolonged. The multitude of treatments with varying results points out the old truth of lack of specific effective therapy.

ADDENDUM

The injection of verrucae of the fingers, particularly in children, should be avoided. A pressure or chemical necrosis may occur in this region. In areas other than the plantar, we advise a 1:1 dilution of oxytetracycline with saline. Also we suggest until one is familiar with technique and response he should treat only plantar verrucae.

Physiologic Aspects of Cardiac Surgery

Dwight C. McGoon, M.D.

Open heart surgery demands full knowledge of the physiological changes relative to the cardiovascular system as well as the behavior of the blood in the various pump oxygenators and particularly the acid-base balance.

A great deal of study has gone into the physiological changes occurring with extracorporeal circulation, and it has been determined that perfusion should closely simulate normal circulation. Physiological changes are more apt to show variations when hypothermia is used, particularly with extracorporeal systems.

Study of the physiology of circulation in altered states, particularly in acquired heart disease, reveals the particular valve or area involved. This is accomplished by numerous techniques relative to dye dilution curves and other studies described.

SO extensively has the bold enterprise of open cardiac surgery been dependent upon strict observance of the physiologic demands and conditions of the body that it has become of the most pressing importance for all those involved in cardiac disease to become intimately acquainted with such items as oxygen saturation of the blood, pressures, flows and resistances, acid-base balance, myocardial physiology and others.

A tremendous amount of study has been given during the past decade to the alterations in body physiology which occur during and after the employment of full-body perfusion. A stimulus for this study has been the need to determine the optimal system of perfusion which should be employed in surgical practice. In the light of increasing experience and knowledge, the opinion seems now generally accepted that any clinically employed system of perfusion should closely simulate most features of the normal circulation of blood as accomplished by the heart and lungs themselves. Thus, the volume of blood flow perfused through the body should approximate the normal cardiac output of the anesthetized patient, which amounts to approximately 2.4 liters per minute per square meter of body surface. With proper arterial and venous cannulation and an appropriate extracorporeal apparatus, a nearly normal hemodynamic status can be accomplished.

In certain instances, mild hypothermia combined with whole-body perfusion has been beneficial in that it allows the rate of perfusion to be lower. It is known that certain complicated forms of cardiac disease could be best treated by complete cessation of all blood flow through the body, and to bring about this state profound hypothermia, produced by extracorporeal cooling, shows great promise. At a body temperature of 15° C. the central nervous system is protected from irreversible injury during periods of total cessation of the circulation lasting 30 minutes or more.

Heart disease results in an altered hemodynamic state, and a study of this abnormal type of physiology of the circulation results in clues which are of diagnostic value and are helpful in determining therapy. To illustrate, in the care of patients who have acquired valvular heart disease, cardiovascular physiologists can render considerable practical assistance because of the special knowledge they have gained from study of the abnormal circulation in these patients. Study of pulse contours and dye curves after the injection of dye into various chambers of the cardiovascular system is of value in determination of which valve or valves are involved, and whether stenosis or insufficiency is the significant lesion.

In conclusion, the application of many of the physiologic principles of cardiac surgery is illustrated by presentation of some of the technics and results of the surgical treatment of acquired valvular heart disease.

*Abstract of paper read at the meeting of the Arizona Chapter of the American College of Chest Physicians, Scottsdale, Arizona, May 4 to 7, 1960.

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Regional Anesthesia Combined with Intramuscular Sodium Pentothal for the Pediatric Orthopedic Patient

Kenneth K. Keown, M.D.

Infants and children are not small adults and are much more anxious as patients than are adults. This article deals with a newer approach to pre-medication in children by the use of intramuscular pentothal sodium. Advantages, disadvantages, techniques and complications are discussed and evaluated. Intramuscular pentothal sodium can be a valuable technique in allaying fears of children going to surgery as they are asleep while still in the presence of their parents. The use of intramuscular pentothal sodium makes regional anesthesia in children a much more feasible entity.

THE prime requirements of anesthesia are the abolition of pain, to afford maximal safety to the anesthetized patient and to provide an adequate operative field for the surgeon. It is unfortunate, that at times, we anesthesiologists lose contact with the requisites of the surgeon. It is well, at all times, to remember that the most important person in the operating room is the patient. The efforts of all physicians, nurses, and other ancillary personnel should be directed toward the achievement of the maximum safety for the patient's well being.

Infants and children are not small adults. The requirements to produce and maintain anesthesia in the young are varied and complex. Fastidious attention to the details of the pre-anesthetic survey and for the preparation of the patient are mandatory for a well conducted anesthesia. The psychological preparation for anesthesia and surgery for the pediatric patient is often achieved under the most trying of circumstances. This includes pain, unfamiliar surroundings and visitations from strangers. The unfamiliar hospital garb worn by nurses, physicians and others accentuates the patient's anxiety.

Infants and children have a higher oxygen requirement in comparison to their size than do adults. To reduce fear and excitement of the infant, both of which increase the basal metabolic rate the use of heavy preliminary medication and intramuscular Pentothal is recommended.

Adequate anesthesia for the operative procedure is of course the responsibility of the anesthesiologist. We have found the use of regional anesthesia to be particularly effective and reliable in the infant and child. A desirous result of regional anesthesia is the relative freedom of vomiting and the control of pain in the immediate post-operative period. Allowing earlier ambulation and feeding of the young patient, thus disturbing less the fluid and electrolyte imbalance produced by anesthesia and surgery.

Sodium Pentothal has enjoyed wide clinical application since its introduction by Lundy in 1936. Ordinarily Sodium Pentothal is administered in appropriate concentrations by the intravenous route. It has been well established that the installation of a five to ten per cent solution of Sodium Pentothal rectally will produce adequate basal hypnosis.

A third route of administration is the use of

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2½% or 5% solution of Pentothal intramuscularly in the pediatric patient. We have used this technique in individuals as young as six hours of age and as old as six years. It is believed that intramuscular Pentothal should not be used in individuals who weigh 50 pounds or more. The use of intramuscular Pentothal has proven satisfactory to provide basal hypnosis, to supplement inadequately premedicated infants and children and to produce adequate sedation prior to the use of regional anesthetic agents.

The use of intramuscular Pentothal Sodium converts an uncooperative patient in whom regional anesthesia would be impossible to a subject for whom the regional techniques are readily adaptable.

Our technique of administration is to inject a five per cent solution of Pentothal through an 18 or 20 guage needle deep into either upper outer quadrant of the buttocks. Extreme care must be exercised to inject the solution deep into the muscle. Superficial injections may result in sluffing or a prolonged absorption time. Every possible precaution against intravascular injection must be taken. This is most easily achieved by careful aspiration with the plunger of the syringe.

The dosage of intramuscular Pentothal recommended is from five to ten milligrams per pound. The dose is regulated according to the physical status of the patient, the duration of the surgery contemplated and the effect of the previously administered preliminary medications. The very debilitated child should receive not more than five milligrams per pound as dehydration, hypovolemia and debility per se all have a depressant effect on a child's cardiovascular and respiratory systems. An individual that is acutely ill with a disease will require as much intramuscular Pentothal as will his healthy counterpart. It is recommended that one milligram per pound of body weight of Meperedine be administered 90 minutes prior to the administration of intramuscular Pentothal.

If the surgical intervention is to require more than 90 minutes of anesthesia it is recommended that one-half the original dose of intramuscular Pentothal be administered after 75 to 80 minutes of hypnosis has been afforded.

The average onset of hypnosis is from 7 to 8 minutes in the premedicated infant and approximately twice that time in the child who has received no meperedine or morphine as preliminary medication. Typically the infant or child will sleep for two or three hours after the original administration of the intramuscular Pentothal. The child is easily aroused, however, after approximately 90 minutes.

There are certain specific contraindications that must be closely adhered to or untoward depression will occur in the child in whom intramuscular Pentothal has been used. The contraindications that we believe invalidate the use of intramuscular Pentothal are hypovolemia, pyodermia of the gluteal area, respiratory depression and individuals with constrictive or obstructive lung pathology.

The two most common complications following the use of intramuscular Pentothal are: respiratory depression, and secondly a diminished cardiac output resulting from overdosage.

Obviously any technique which utilizes a precalculated dose is less accurate and more prone to anesthetic complications as a result of improper dosage than the administration of a drug affording minute to minute control. With experience the frequency of respiratory and cardiovascular depression can be eliminated or restricted in frequency. Respiratory depression if observed rarely lasts more than three or four minutes.

The injection of a five per cent solution of Pentothal is painful because of its alkalinity. The child will ordinarily cry for a brief period of time, rarely more than thirty to sixty seconds. If the patient has been adequately sedated with meperedine the crying is less vigorous and thus untoward oxygen consumption is minimized.

Advantages of the use of intramuscular Pentothal are the following: It allows a simple quiet induction affording excellent basal hypnosis.

One of the very distinct advantages of the use of intramuscular Pentothal has been the retardation of nasal, pharyngeal and gastric secretions. The emergence from the combination of regional block and Sodium Pentothal anesthesia provides a more controllable and calm child.

This is considered particularly desirable in the very young patient.

The regional anesthetic agents used in the orthopedic patient have been one per cent Lidocaine and 0.2 per cent Tetracaine. In individuals in whom procedures lasting more than 90 minutes are anticipated we use a combination of Lidocaine and Tetracaine to which five drops of one to one thousand solution of epinephrine is added to each 100 cc of solution.

The utilization of brachial plexus block by means of the axillary route described by Accardo and Adriani has been used in the greatest number of children for orthopedic and reconstructive procedures of the upper extremities. There are distinct advantages to this technique such as the avoidance of pneumothorax and the facility with which the anatomical landmarks can be palpated. At the level of the insertion of the pectoralis major anteriorally and the latissimus dorsi posterially the terminal portion of the axillary artery is palpable. With the use of the artery as a landmark the nerves are easily blocked. Two 22 guage needles, one to one and a half inches long are recommended. The first needle is directed above the artery until contact is made against the humerus. The needle is introduced at the level of the insertion of the pectoralis major. A second 22 guage needle is introduced directly inferior to the first so that the axillary artery is straddled. One to four cc's, depending upon the size of the infant, of the regional anesthetic solution is injected into each of the two needles previously placed. Excellent sensory and motor anesthesia is produced within 15 minutes. This combination of intramuscular Pentothal and regional anesthesia utilizing the axillary route for brachial plexus block has been used for all infants and children who are to undergo surgery of the upper extremity. Included have been all fractures of the radius, ulna and distal ⅔ of the humerus. Reconstructive open surgery, as well as tendon repairs, and reconstructive surgery following burns of the upper extremity have also been included. It is well to do the second block approximately fiften minutes prior to the manipulation on the affected side. It is well recognized that fractures in infants and children retard or stop all gastric and intestinal mobility following the initial injury. Children seem to have a predilection for sustaining fractures of their upper extremity imediately after having consumed a full meal. In our series of 85 patients we have not had one instance of vomiting during the course of the operative procedure.

The necessary precautions attendant with proper anesthesiological practice should always be made. This includes an available source of oxygen, a mode of administration of the oxygen, artificial airways and available parenteral fluids.

The facility with which regional anesthesia can be produced in the upper extremities following basal narcosis with intramuscular Pentothal Sodium has proven satisfactory to patients, orthopedic surgeons and anesthesiologists.

The combination has proven effective for both emergency and elective surgery.

It is our clinical impression that post operative swelling has been minimized as a result of the sympathetic blockade attendant on the block of the brachial plexus.

The requirements for efficiency are a knowledge of the anatomy of the upper extremity, knowledge of the pharmacologic action of the specific regional anesthetic agents used and gentleness.

REFERENCES

Accardo, N. J., and Adriani, J.: Brachial Plexus Block, Simplified Technic using Axillary Route, South., M.D., 42:920 (Oct.) 1949.

Clayton, M. L. and Turner, D. A.: Upper Arm Block Anesthesia in Children with Fractures, J.A.M.A., 169:327 (Jan. 24) 1959.

Keown, K. K. and Hitchcock, P.: Intramuscular Injections of Pentothal Sodium, Anesth. and Anal., 39:1 (Jan.-Feb.) 1960.

Lundy, J. S.: Intravenous Anesthesia, Ann. Surg., 34:559, 1930. 1936.

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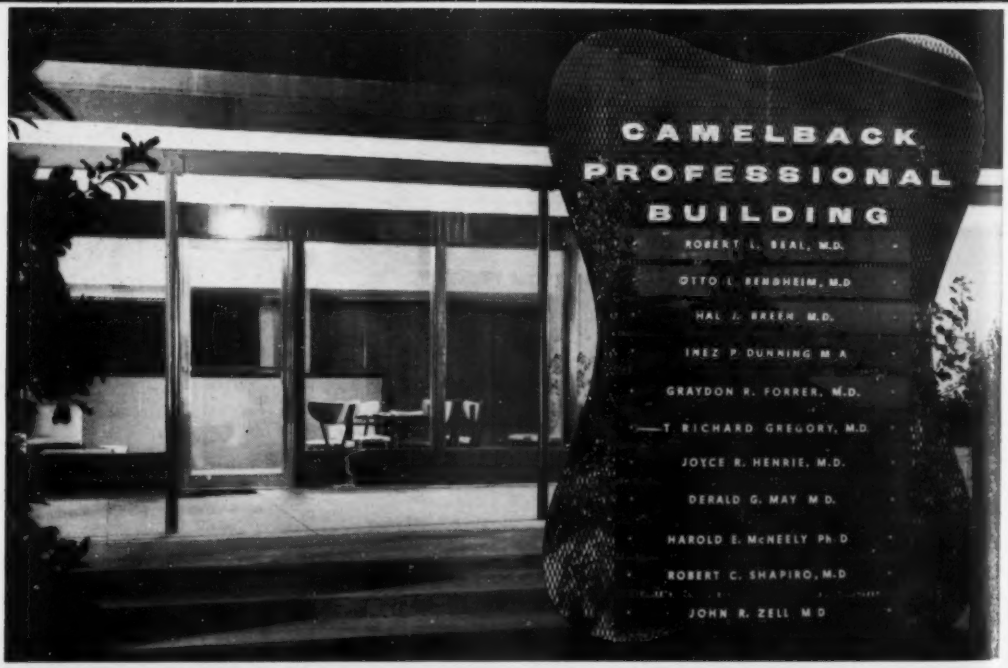

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The President's Page

Antiscientism and Medicine

Lindsay E. Beaton, M.D.

Lindsay E. Beaton, M.D.

This is an age of paradoxes, and not the least of these is the fact that a culture that has come to depend on machines is yet pervaded with hostility against the science that underlies technological advances. Suspicion of and antagonism against science have been widely documented, increasingly in the '50's, but really ever since the end of World War II, a dating that is obviously significant and perhaps explanatory. Kirtley F. Mather, in an address before the American Association for the Advancement of Science in 1951 gave the first formal recognition to "the problem of anti-scientific trends", voicing what many of his colleagues had been thinking for five years. History, of course, records recurrent attacks on the scientific knowledge of the day. In the latter half of the 19th century, for example, the foes of evolution mounted a particularly nasty foray from the religious quarter. But no century prior to the 20th has been primarily based on science, and it would seem at first blush as though an attack on it in the modern era would be akin to assaulting the Catholic structure of civilization in medieval Rome, the monarchical fundaments of Bourbon France, or the cement of imperial divinity in the Japan of the Shogunate, chipping at the necessary foundation of the society of the age.

Others have accumulated the evidence to demonstrate that antiscientific trends do exist, that there is massive resistance to what science stands for and teaches, and that many people, perhaps a majority, consciously or unconsciously oppose scientific method, scientific thinking, and their results. The brief analysis of this essay needs only the support of illuminating examples, which the restraint of space will make compulsorily few, but the collection of exhibits is limited only by one's patience and the number of filing cases one can afford. Beneath the forest of specific citations there is the soil of general attitude that one senses in the press, radio and television; in the jokes that run through the populace; in the laws that are passed, the sermons that are preached, the cartoons that are drawn. The mad and sinister scientist is a stock figure of the movies and of magazine fiction. Certain irrational fears, so easily ignited, have the same

roots. One recalls Orson Wells' radio hoax of the Martian invasion. There is a plain feeling at large that the scientist possesses more powers than ever the sorcerer dreamed of and that he is not bound by the considerations of ordinary folk in their use. Dwight Eisenhower, in his farewell address, found it important to warn the nation against two threatening dominancies, that of the military and that of science. One of the most telling illustrations of basic popular bias was the study done in 1957 by Margaret Mead and Rhoda Métraux on the image of the scientist among high school students. While this indicated that high school adolescents regard the scientist as brilliant and dedicated, altruistic and gifted, he is also viewed as narrow, wanting in breadth of experience, and specifically lacking understanding of the usual interests of Americans. His work is seen as tedious, often dangerous, and poorly paid. He is judged irreligious and possibly not patriotically reliable. Specifically he is not the hero for a right-thinking boy, and not marriage bait for the boy's sister. The portrait is one that is likely to evoke a negative response for selection of either career or mate. With present compulsions for security, early matrimony, and social adjustment, the lonely, responsible, sometimes austere figure of the scientist or professional man is not as attractive a model for the young as we blithely assume. If high school children hold this picture of scientists and their work it is hard to see where or how in their future lives their perspective would be trued. Presumably a majority choose their vocations at this time and then select college courses to fit the choice. Many potential scientists must be lost at this educational divide.

If this be a common misconstruction, another question arises. Is anti-scientism an isolated psychological set or is it part of a permeant anti-intellectualism? Perhaps the latter interpretation is valid in some measure, but the paper by Mead and Métraux proves that the scientist is specifically suspect, that he is separated in distrust from other careerists. There is also the testimony that "intellectuals" generally, artists, writers and critics, humanists, are themselves substantially anti-scientific. A genuine split exists, as is becoming widely acknowledged, between the scientist and the non-scientific intellectual, one of the important social schisms of the day. Therefore anti-scientism seems to be an explicit prejudice. And the public's jaundiced view of scientists definitely includes the physician. Some of the show pieces of antiscientism are found in the biological and medical fields. So this is, for us, It is as much a threat to health care of the sick as governmental interference with the freedom of practice or bureaucratic dictation of research or of the content of professional education.
not merely an interesting cultural phenomenon.

There is, of course, a distinction in the popular reception of science and technology. Whatever the antagonism toward the former, its offspring, invention, is always honored. The "practical" aspects of science are gladly accepted, while its insights into the nature of man, the future of the universe, and the limitations of existence are minimized or denied. No one complains about modern plumbing, the conveniences of rapid travel, reliable food supplies, or antibiotics; on the other hand there is no unhesitating welcome for ideas that challenge the hoary beliefs of the race with regard to its rituals, its laws, its social structure, its cosmological tenets. This challenge of science to the prevailing orthodoxies is relatively new. Franz Alexander points out in "The Western Mind in Transition" that the initial scientific development after the Renaissance had no great transforming effect on society. The speculations of Galileo, Copernicus, Kepler, Newton, and Dalton, though they laid the foundations of modern scientific thinking, did little to change the lives of the people. Science was purer in its infancy; it was pursued for the sake of its own enlightenment. But toward the close of the 18th century, accumulated abstract knowledge overflowed into applications of every day use. Not until then did the dichotomy between science and technology in the public mind begin to take shape. It is sharp now. The folk heroes of science in America are inventors like Edison and Howe, or putterers like Burbank, not fundamental theorists like Willard Gibbs or Thomas Hunt Morgan. The inventor is mankind's benefactor; the true scientist is an ivory-towered eccentric. Dael Wolfle, in a report in 1954 on "America's Resources of Specialized Talent", underlined the public contradiction. "America is ambivalent toward the scholar. It wants rocket ships and atomic-powered submarines, a cure for cancer and bigger television screens — but it mistrusts the people who have the ability and education that lead to these de-

sired end products."

Science, in the sense that it is being employed here, it not a concept easy to define succinctly. James B. Conant's definition may be quoted as a base needing amplification: "Science is an interconnected series of concepts and conceptual schemes that have developed as a result of experimentation and observation and are fruitful of further experimentation and observation." But further it involves the formulation of what is usualy and casually called "scientific truth". This phrase also deserves a moment's rumination, for it has precise meaning to the scientist. For him, truth, as Homer W. Smith has said, is "opinion demonstrated by test to correspond with nature." Finally science is often equated with scientific method, which is also difficult to pin down. In a philosophically surer past it was assumed to correspond to induction as opposed to deduction. This is simplistic. Scientific genius is often intuitive, as witness the insights of Newton on seeing the apple fall, of Kekule in visualizing the benzene ring, or of Freud when he pierced the meaning of dreams. In truth there is no one scientific method. There is an interrelated congeries of approaches agreeing in the final resort of check against the discernible facts of nature. It is perhaps most accurate to construe scientific method by describing its attributes. It is characterized by observation and experiment, by the verification of inference, by tentativeness of conclusion, by constant reference to natural reality, by alertness for personal or instrumental distortion, and by complete abhorrence of dogma or untestable revelation, at least in the field in which it presumes to operate.

When one plunges into the murk of antiscientific thinking, he quickly becomes concerned with the benighted intelligent, the influential leaders of thought. The antiscientism of intellectual groups is science's deadliest poison. However, the superstitions of the ignorant and uneducated are not to be lightly dismissed in an age of popular information and total franchise, an age when new nations spring up in Africa and Asia that have little indoctrination in the Western tradition, which has been the atmosphere of modern science. This is not to scoff at other traditions; it is merely to point out that they have not given native origin to the scientific society that is the inevitable shape of the future. We do therefore have to take into account the suspicions and fears of the uneducated masses, the feelings that always attach to what is unknown and unknowable, the esoteric lore of an exclusive coterie. There is also the persistence in human thinking of a substratum of magic, basically animistic, which appears in the form of prescientific and irrational primitive rituals, which began, as any ritual does, to reduce anxiety in situations beyond empirical control. Water-witching would be an example of this kind of magical thinking, or, in the medical field, folk cures like food fads, the honey and vinegar of recent Vermont notoriety, the nonsense of naturopathy, and the hundreds of household remedies that technically are vestigial remnants of the sympathetic magic of the childhood of the race.

The peril to science does not all arise from without, from a distrustful populace or from scientifically illiterate literati. There are also weaknesses within the citadel, for which scientists are themselves accountable. Among them is a too ready acceptance of governmental secrecy, a concealment of scholarly discovery that probably risks rather than protects national security. It can be convincingly argued that the loss of momentum when new findings are not circulated to quicken research far outweighs the hazard of priming a competing country. The belief that we have lost ground in the nuclear race because spies have stolen our techniques for foreign powers is dubious. It is a reflection of a chauvinism that assigns genius only to Americans. In fact, in the 20th century the idea of a"scientific secret" is preposterous. Along with reluctant approval of censorship of scientific publication has gone tacit acquiescence in a primarily military aim, especially for the physical sciences, but also to some extent for the biological specialties. Another countercurrent in the stream of science is the deficiency in interdisciplinary reconcilement, not only remissness in establishing coherent connections between science and other scholarly pursuits, but also the lack of communication between the various fields of science. And finally there is still a failure adequately to educate the public, in spite of magnificent efforts on the part of some scientists and some of the professional science writers of the press.

When one tries to categorize the specific evidences of antiscientific thinking, the most striking and saddest demonstrations are afforded by the learned, the very individuals on whom our

gifted children rely for vocational guidance. This is the reason why the American Association for the Advancement of Science in an official editorial in *Science* by Dael Wolfle marked "a retreat from science", manifested by a dwindling number of students choosing scientific careers. The same tendency was noted more recently by Conant in his studies on American secondary school education. First, there is the frequent gullible swallowing of pseudo-science or the irrational by these leaders of intelligent opinion. One can recall the astonishing notions of Immanuel Velikovsky as a horrible example. This man, a physician and psychoanalyst, published a book, "Worlds in Collision", in which divers myths of ancient and biblical history were explained by a fantastic hypothesis of very un-Newtonian antics on the parts of the planets, which were presumed in the past to have gone merrily crashing about our solar system. Not only was the volume brought out by a reputable publisher of text-books (MacMillan) but chapters were printed in *Harper's Magazine*. The reviewers greeted this masterpiece with loud huzzas and yowled about "freedom of opinion" when scientists mildly protested giving currency to such hogwash through the media of a respected book house and an upper middlebrow periodical. Apparently any kind of arrant nonsense passing as science should have the right to publication with the warrant of an established imprint. It would be only just to extend the same guarantee to writers of admitted fiction.

In the same year equal enthusiasm was manifested over Kenneth Roberts' book, "Henry Gross and his Dowsing Rod", published by Doubleday, which also took over Velikovsky when MacMillan shucked him. Even Homer nods, but Mr. Roberts, a good novelist, had cataplexy. This was an almost incredible but entirely serious espousal of water divining, and again the scientific illiterates were pale with wonder, not having the background to smile at an old folk ritual. At about the same time the flying saucer hysteria struck the country, with Frank Scully's "Behind the Flying Saucers" as its first authoritative text. This was less of a literary sensation but more of a popular one. It was seriously reported in Life (according to Roscoe Pound the magazine for people who cannot read). And it was on one occasion defended by a prominent conservative United States Senator. Even yet faith in flying saucers lives on, though it has been thoroughly dissected by scientists, just as Henry Gross and Immanuel Velikovsky were. In recent months Lawrence J. Tacker of the United States Air Force, in a book entitled "Flying Saucers and the U.S. Air Force", has again tried to prove to an open-mouthed public that there are no little green men in the stratosphere. But — particularly in California, where else? — there remain those who swear by space ships, and some who bear witness to their trips in Venusian rockets.

Some of the antiscientism of the leaders of opinion is less blatant than that exemplified by these cited infatuations. It is often disguised and probably unconscious. The fashion in which certain circles constantly inveigh against "materialism" is perhaps a sign of such an unrecognized antiscientific attitude. Science is bound to be a materialistic way of thinking since it can deal only with the concrete and measurable, and rigorously confines itself to operational definitions. A stand against "materialism" can also be nicely meshed with anti-Communism, since the latter is "materialistic," and hence, by the logic of a McCarthy, a scientist is a suspect Bolshevik. The jeremiads against the creation of nuclear weapons and other instruments of mass destruction may have the same unconscious origin. The outburst of antiscientism at the close of World War II is certainly related to anxiety about the terrors science had wrought. Behind such lamentations lies the dread of an old theme, Frankenstein and his monster, the fear of the demented scientist who will create what society cannot control. Actually he becomes the scapegoat when society creates what it cannot itself control.

Such apprehensions plus the desire to please every minority must lie behind political antiscientific actions. Sometimes there is a patent desire to force the abstractions of science into conformity with the political line. The classic case is Lysenkoism in Russia, where modern genetic theory was turned upside down to correspond to the Marxian creed of equality. We have never reached any such nadir in these enlightened United States, but ten states exempt students, on religious grounds, from courses in hygiene in the public educational institutions, and the New York State Board of Regents once ruled that there could be no questions in high school biol-

ogy examinations on the germ theory of infectious disease, out of deference to the adherents of Christian Science. These are illustrations, not isolated aberrations, and the logical conclusion would seem to be that all students can be prevented from learning anything to which a crackpot handful objects, especially if the Cross be raised to cast its protective shadow on the objection. In the same class but of lesser degree than Communist Party canonization of Lysenko was the peremptory dismissal in 1953 of Allen V. Astin as Director of the Bureau of Standards by the Secretary of Commerce, Sinclair Weeks, because Dr. Astin had had the temerity to stand by objective evidence of the worthlessness of a commercial preparation, a storage battery additive, and had not, in the unique reason advanced by the Secretary, given enough attention to the "play of the market place". In an age that judges worth by advertisement, a product is not what it can be proved to be but what Madison Avenue says it is and the hucksters can sell it for. A business society, perhaps every modern society, demands that each citizen be a partisan of the accepted gospel of the day and will not freely tolerate even dispassionate and factual opposition. Perhaps behind the inquisitions into which some congressional investigations of teachers and scientists have degenerated lies the same dark and insensible misgiving that scientists do not see the world as other men do and that they are the instruments of frightening change. Thus the panicky impulse that they had better be smeared with the Red brush, but quick.

Franker than the petty contrariness of politicians is the defiance of writers and artists to science, creating the dichotomy that recently Sir Charles Snow has so vigorously called to attention. Probably behind this recalcitrance is the thought that prosaic science will destroy or impair the importance of the poetic vision, echoing Keats that science would "conquer all mysteries by line and rule". The literary opponents of science include some of the greats — Browning, Poe, Cowper, Tennyson, Wordsworth, and in the modern era Aldous Huxley, T. S. Eliot, and D. H. Lawrence with his return to the primitivism of Rousseau, to mention a random few. George Gissing wrote at the end of the 19th century, "I hate and fear science because of my conviction that, for a long time to come, if not forever, it will be the remorseless enemy of mankind. I see it destroying all simplicity and gentleness of life, all the beauty of the world; I see it darkening men's minds and hardening their hearts; I see it bringing a time of vast conflicts, which will pale into insignificance 'the thousand wars of old', and, as likely as not, will whelm all the laborious advances of mankind in blood-drenched chaos." I am sure that some of today's Cassandras would hail this as prophecy and will treasure the quotation. They can find it in the "Roycroft Papers." Fifty years later E. M. Forster was still deploring "the implacable offensive of science." He sighed, "We cannot reach social and political stability for the reason that we continue to make scientific discoveries and to apply them, and thus to destroy the arrangements which were based on more elementary discoveries." But science has had its literary proponents too, just as great, Dante, Chaucer, Swinburne, Meredith, for examples. And De Tocqueville admired in America the very certainty of the progressive advance toward the new that Forster bemoans. Today, however, there is surprisingly little evidence of literary effort to understand science, to interpret it in meaningful forms of the time, as for example Dante did in the 14th century. Sir Charles Snow is almost a throwback to a more eclectic tradition in bridging the gap between scientist and novelist by being both at once.

The literary advocates of widening the distance between art and science would seem to be in the majority, if one dares inference from misleading reviews of scientific books in the gazettes of the trade. Recollection is still sour of a notice in *Harper's* on Robert's opus about water-witching in which the reviewer was in open transports at the spectacle of science on the rack. The rationality of science seems to be taken as the enemy. The arts at times appear to turn away from reason, not only properly to give expression to the emotional aspects of existence, but also out of a perverse fascination with what Ben Lucien Burman has called "the cult of the obscure and the unintelligible". He was thinking of literature, but the same intended incomprehensibility invades modern philosophy, music, and even the plastic and pictorial arts. It is on visualization that man depends for his major grasp of reality, and the divorce of painting from the external world, as in dadaism or abstract expressionism, is the most stunning testimony of the separation of art from science. The gap is not narrowed by

the conventional current symbolism of fiction. Malcolm Cowley, writing on the new novelists and remarking on their pat figures notes the "scientist as prototype of evil." Then there is literacy scorn, no conciliator. On this flank lurks Gilbert Highet, philosopher and classicist: "The word Science itself has become a vague reassuring noise, with a very ill-defined meaning and a powerful emotional charge; it is now applied to all sorts of unsuitable subjects and used as a cover for careless and incomplete thinking in dozens of fields." This attack from ambush it the deadliest of all.

With all deference, the observer is also bound in honesty to note that both doctrinaire and deviant religions are another source of antiscientism. Old dogmas, like old soldiers, never die, and some of the historic orthodoxies have fought the advance of science on many fields, as recounted by the chronicler of those battles, Andrew D. White, in his classic, "History of the Warfare of Science with Theology in Christendom." Some ancient faiths still remain intransigent on certain points, but on the whole their catholic or ecumenical designs have made possible a reconciliation with science. More resistant are the fundamentalist and adventist sects that have arisen, at least in this country, with surprising rapidity in recent years. More subtle doubt of science has lately emerged in the most modern and liberal aspects of Christian faith. What is the scientist to think of Protestant neo-orthodoxy? One of its high prophets, Karl Barth, for example writes, "We ought to give up every thought that the care of the world is our care. For just this is the root and ground of all disorder." It is inappropriate for religion to belie science, for a fair case could be made out for the theory that the optimistic and hopeful philosophy of science arose from the Christian church, among the Gnostics of the 12th and 13th centuries, perhaps most convincingly from Joachim of Flora. These men looked for perfection on earth as well as redemption in heaven, pursued salvation through knowledge as well as through faith, and valued social justice as well as holy works. In spite of many attempts at harmony, the ancient conflict smolders. It is still a fact that proportionately few of America's scientists come from the religious colleges, a circumstance deplored by leaders of those schools and well documented for the curious in a book, "Origins of American Scientists" by R. H. Knapp and H. B. Goodrich. Such observations probably help to keep some anxious to maintain unbreached the wall between church and state, lest sectarian demands water down scientific teaching in the schools. Norman Cousins in an editorial some years ago in the *Saturday Review* asked, "If religion becomes the yardstick for other courses of study what happens when the yardsticks clash? Isn't it likely that the moment the school doors give way to outside pressures the strongest pressure will prevail? Isn't there a danger that the religion of the majority could become dominant in education over the minorities? Is the domain of knowledge for all to be made subordinate to the domain of religious belief for some?" Science is knowledge, and religion rests on faith, not knowledge. The dualism is real, at least with the literal fundamentalist denominations. For the strongest kind of statement on the dichotomy I offer Australia's top atomic physicist, Marcus L. Oliphant, speaking before the Royal Society of New Zealand's Eighth Science Congress in 1954, attacking statements that cited science as a menace to the world: "We are told that Adam and Eve were driven from the Garden of Eden because they disobeyed the law and ate of the fruit of the tree of knowledge. It seems strange that the exercise of the greatest faculty with which man has been endowed should ever have been regarded as a sin. By a deliberate act, probably the greatest step he ever took, man chose knowledge, thereby setting himself apart from all living things and ensuring his ultimate dominion over the earth. What is called the Fall of Man should be known as the Ascent of Man."

All of this indicates the categories of evidence of a great distrust of and active quarrel with science on the part of the "intellectuals", taking that term in its usual usage to signify the artists, the philosophers, the theologians, the historians, the writers, and not meaning only those who deal with matters of the intellect, a more inclusive grouping which would certainly have to include the scientists, as perhaps the main modern proponents of the true life of scholarship. The creed of the "intellectuals" is compressed into Jacques Maritain's disdainful contrast of "science" and "wisdom", and into statements like Toynbee's that "secularization of knowledge is beginning at last to be recognized as the supreme danger to the spiritual health and even to the material

existence of the body social of the Western World." The curriculum of intellectual antiscientism is the neo-Thomism of Robert Hutchins and Mortimer Adler, and its canonical texts are the "100 great books", in which wisdom is fossilized for all time. Similarly in the lower reaches of the school system too, many authorities note a decrease in the number of students enrolled in scientific courses. This may recently have been reversed with the recognition of the need for technical training in the interests of national defense. But note; the reaction occurs under threat, not out of any real conviction that science is the road to understanding of a modern world. The offerings of our academies of learning suggest the opposite. As one angry critic, Historian Arthur Bestor of Illinois, exploded after reading a report in his home state, it is suggested "that the schools can serve the nation in its present hour of peril by asking its students to 'make the studies of how the last war affected the dating pattern of our culture.' "

Some of the gaudiest and to a doctor most spellbinding specimens of anti-scientism are to be found among the adherents of crackpot medicine. The seeker will uncover fantasies that would be uproarious, if each did not mean pain and tragedy for the sick. They are endless, from the psycho-nonense of Phoenician L. Ron Hubbard's "Dianetics", to the equal nonsense of Wilhem Reich, who, to even things up in the state, lived in Tucson for a while and who concentrated the orgastic power of the universe in a box, into which the true believer could step, with understandable benefits. While in Pima County he spent spare afternoons breaking up the clouds over the Catalinas by the sheer strength of his gaze. Arthur Koestler, certainly a respectable intellectual, was once a devotee, and only recently the late delusional works of the deceased Dr. Reich, who before he became psychotic was responsible for real advances in the theory of character neurosis, are receiving favorable notices in the reviews. No one can list all the quacks. Here we are less interested in their remarkable notions than in their backers. For example the Koch "cancer cure" was supported by Senator Langer, now dead, while the Lincoln treatment for multiple sclerosis was a pet of the late Senator Tobey. The "vrillium" fraud, in which a magic pellet costing only a few modest thousands was hung around the neck to ward off disease, found a sucker in Mayor Kelly of Chicago, before his death. This modern scapular turned out to be a brand of rat poison. I hasten to assure that I do not mean to infer that the cures killed these gentlemen. I take these examples from those who have been called to their Maker merely to avoid needless testing of the protection of *Arizona Medicine's* libel insurance. Finally the epitome of medical indorsement has perhaps been achieved by Gayelord Hauser's diet, which has been given the palm by Greta Garbo, Paulette Goddard, and the Duchess of Windsor, lovely ladies all. But perhaps the greatest persuader, the most enchanting faker since Barnum, was John R. Brinkley, who made goat glands famous, who ran for governor of Kansas in 1930 and would have been elected if he had not started his campaign too late to get on the ballot and therefore had to depend on write-in votes, and who was even considered as a possible Presidential candidate. If Morris Fishbein never did another thing for medicine, he was the final nemesis of Brinkley. So goes the roster — palmists, sleep teachers, crystal-gazers, astrologists, sexologists, mountebanks and impostors of every variety imaginable and unimaginable, each with his devoted and defrauded following. C. E. Boyd in his book, "The Cult of Chiropractic" notes that there are 34 chiropractic schools and that their graduates are licensed by 43 states, Arizona of course among them. At last count we had 214 of these healers, fortunately fewer than the California record of 5,319. Richard Blum in "The Management of the Doctor-Patient Relationship", a book commissioned by the California Medical Association, says that 70 out of every hundred patients feel free to go to chiropractors and charlatans. And that is quite a figure — even for California.

If these are some of the credentials of antiscientism, a few of the straws that float in the wind of a spirit antagonistic to a scientific era, what are some of the reasons for the anomaly? There must be many; like any neurotic symptom, antiscientism is probably "overdetermined" and owns more reasons than it needs.

First of all, there would seem to be actual ignorance, in part due to poor science reporting by the newspapers and magazines and in part due to inadequate popularizations of science in the books that reach the general public. One recognizes at once such exceptions as Rachel

Carson's inspired descriptions of marine biology, perhaps Paul de Kruif's books on medical discovery, now a little old, some of the recent volumes on archeology. There are not many. Scientists are not doing the educational job the public deserves; perhaps it is not theirs to do. They have other and more important responsibilities. But good popularizations will be well received, and will lessen prescientific and antiscientific thinking. Along with this failure goes poor teaching of the sciences in the schools, as underlined by Conant's writings. Part of this is probably because of inferior training of elementary and high school teachers in their subjects, in the teachers colleges and the departments of education of our universities, where the emphasis has been on puerile method and little on mature substance. Furthermore, as has been pointed up by statistical surveys, the talent of persons going into teaching has not been nearly as high as that of those going into other professional fields. It is understandable that as a group teachers have little grasp of science and therefore little enthusiasm for it. By the time their students reach college the teachers have swindled them; their interests have been fixed in other channels.

Another barrier to popular acceptance is the recondite nature of modern science. It is difficult to comprehend, sometimes even to formulate. Its simplifications are sometimes unfortunately misleading to the extent of being actual perversions of the point. Concepts must be made unexacting in this age of the soft sell, and the understanding of mathematics and the sciences is not easy work. Therefore the fatuous paraphrase is easily marketed in the place of the genuine article, as Mark Twain used to call it. There are undeniable obscurities of technical language and vocabulary. Scientists have difficulty enough in communicating with their fellows in other branches, let alone with non-scientists. Picture a specialist in enzyme chemistry trying to describe his research to a worker in the field of Slavic linguistics. Picture an entomologist trying to talk meaningfully with an astronomer. Even in closely allied specialties verbal contact is tenuous; the psychoanalyst, for instance, has trouble in finding common ground of discourse with the average physician or even with his associates in neurology and general psychiatry. Some modern scientific abstractions can hardly be explained in words, in analogies, even in visualizations. Much of modern physics can be represented only in mathematical terms and the field is closed to those who are not indoctrinated in the rigors of mathematical logic.

There is further reason for antipathy to science in the unpalatability of some of its conclusions. Man has historically held an anthropocentric view of the universe, a comfortably exalted idea of the consequence of his species and his planet. The first blow to his ego was the verdict of Renaissance cosmography that earth is not the center of the heavens, not even the hub of the solar system. This was the basic cause for the persecution of Galileo. Next came the Darwinian disillusionment, the echoes of which still ring into our era, that the human is not a fallen angel but a risen ape. And finally the cruelest wound was inflicted by Freud, that man is not captain of the vessel at all, but the observer and victim of the storm blown by the wind of the unconscious on the sea of environment, sitting dizzy in the crow's nest and lucky if he can even glimpse the shoals of shipwreck ahead. There are other distasteful lessons of science. For the democrat of Western civilization the fact of inherited inequality does not fit the egalitarianism of the times. For the millenialist in most men there is agony in the scientific certainty that our world is foredoomed to extinction through inexorable processes that lead to entropy. We identify with an indestructible earth, which gives us confidence in personal immortality. This is the probable basis for the tremendous hold on the popular imagination of the promise of space travel, for it encourages hope in the escape of the race to other and younger worlds when this one has been done in by the inevitable results of the second law of thermodynamics. And disagreeable are sociological speculations about the future of mankind, long before extinction, of the direction of the relentless march of humanity's particular historical destiny. There is, for example, Roderick Seidenberg's terrifying vision in "Post-Historic Man" of the crystallized society, like that of ants or bees, with man "entombed in a perpetual round of perfectly adjusted responses."

The extension of science into the social sphere and the rise of the social sciences account for further antiscientism. It is all right within limits to talk about control over natural processes of one sort of another, but it is depravity to tamper

with political processes, psychological prejudices, or economic faiths. Dearly held social preconceptions are endangered by scientific insight, and their defenders strike back hard. Witness the mockery with which professors were portrayed in the public press during the Roosevelt years, when the mortar-board became the contemptuous symbol of egghead government. We may see the same with the Harvardian administration of President Kennedy. At present there is of course a large unscientific content in the social sciences, yet to be weeded out, and this makes them a ready target for derision. But this is excuse rather than cause for the attitude of their detractors.

More fundamentally there is distrust of the mysterious, distrust of what the ordinary man does not know and does not have the education or intellect to grasp. The scientist is the descendant of the shaman and the medicine man, the magician and the priest, and he is feared for his special knowledge, his powers over man and over nature. Society has always sought to restrain the man of the elite. It will still not give the scientist the position in the management of the affairs of mankind that his accomplishments demand. The accusation made against the alchemist still is heard today, even in intellectual circles, that science interferes with natural processes. On a sophisticated plane, it may be said that antibiotics save lives but create population expansion. This is true, but only because science is prevented by social prejudgments from applying the remedies to curb the increment in our numbers. On the political level there is apprehension that science may overturn the accepted nationalistic world order. Science cannot be identified with narrow patriotic cause; there is no American science or Russian science, and scientists are bound to be internationalists. This makes them at once suspect by the reactionary politician, be he Joe McCarthy or Nikita Khrushchev. The traitors, a Klaus Fuchs or Allen Nunn May, then turn the anxious men on all scientists, on the Oppenheimers or the Paulings. Science stands for freedom, and the intensely nationalistic state cannot adopt unrestricted freedom.

There is the associated alarm that science may become, in Hogben's title, "The New Authoritarianism." Humanists particularly point with trembling to widespread uncritical acceptance of technology. One confirmation of this nervousness was the acceptance in literary circles of Anthony Standen's book, "Science is a Sacred Cow." Among the philosophically minded there is dislike of scientific pragmatism, of the doctrine of utility in place of the absolute, of insistence on the question "how?" rather than the question "why?" The critic professes that science worships what will work, and that this leads to the political ethics of a Hitler or a Stalin, the frank doctrine that justifies the rule of force in human affairs. This misgiving is seen in the conclusions of the study made by Mead and Metraux, and in a similar report from Purdue University in 1956. In the latter 27% of high school students felt that scientists were willing to sacrifice the welfare of others to further their own interests, 14% felt there was something "evil" about scientists, and 9% felt that one cannot be a scientist and be honest.

There is very direct opposition to science from older traditions, whose hold on people is threatened by the newer knowledge. Religious suspicion has already been mentioned as an evidence of antiscientism; here it may be examined as a cause. The orthodox theologies have ultimately adjusted to scientific advances, but science is secular in its origins, not religious, and it seems always to have to battle past the entrenchments of dogma. Science will not concede any docrine, no matter how hallowed its testimonials, without either proof or the acknowledgement that it is outside the scope of scientific inquiry. Religion on the other hand has not seldom hinted that the decline in ethical standards is due to the abandonment of ancient manners under the impact of modern learning. The scientist is in certain eyes a modern Faust, and equally condemned for the temerity of his curiosity about God's handiwork. A recent off-Broadway play, "A Banquet for the Moon," concerns a nuclear physist who sells his soul to the Devil. *Quod erat demonstrandum*. Aversion to scientific empiricism is another aspect of bitterness from the older tradition, and we see the philosopher turn away from science to intuitive avenues, existentialism, Zen Buddhism, or obscurantism of various sorts. One must not underestimate the depth of the literary and intellectual alienation from science. There is, as John Q. Stewart, Princeton's great astronomical physicist, once said, "a latent opposition between

those persons having a humane education and those with scientific training." Some evidences have been cited; here are possible reasons. There is the simple panic that science will destroy the traditional values of literature and the classic studies. The humanist looks on the scientist, in Whitney Griswold's term, as "a technological illiterate." The scientist in turn looks with equal impatience on the humanist as a scientific illiterate. And it can be confined that the average writer or artist has a monumental ignorance of science. He would scoff at the scientist who had not read Shakespeare, or Cervantes, or Moliére, but he would be blank if asked to identify Boyle, or Napier, or Paré.

Surprising is the amount of prescientific thinking discoverable in even well educated persons, another determinant for antiscientism. In 1953, Wayne Dennis of the Department of Psychology of Brooklyn University, published a paper that proved without doubt that 33% or more of college and graduate students in psychology had purely animistic ideas, as shown in answers to questions designed to elicit beliefs that life exists in inanimate objects. It is well known that all primitive peoples think animistically, but it is a little startling that students in the universities, the very reliance of our society, have similar superstitions. Apparently, in the absence of specific instruction on the distinction between the animate and the inanimate and the dependence of consciousness upon a nervous system, educated persons in a Western culture maintain formulations about nature that are identical with those of children and savages. This means that to many people, supposedly enlightened, the universe still runs on magical principles. George R. Price, in an article on "Science and the Supernatural" in which he attacked extra-sensory perception, provided a most succinct summary on this point. "The essential characteristic of magic is that phenomena occur that can be most easily explained in terms of action by invisible intelligent beings. The essence of science is mechanism. The essence of magic is animism."

The popular rejection of science may result also from a failure to be in tune with the temper of the times. Technology is, but is scientific thought? The defining emotional fact of Western society at least would seem to be anxiety, with the security of traditional ways lost, the comfort of personal regligion reduced, and the very continuity of civilized life threatened by unspeakable horrors. The scientist, as the wise man of the day, becomes the scapegoat. People always personify their worries. In ancient times the prophet or the witch doctor paid the price when prediction failed, when the rain did not come, when enemies triumphed in the field, when the queen failed to bear a son. Today the atomic physicist is blamed for hurricanes or high tides that may coincide with his explosive experiments; the dentist who advises that fluorides be put in drinking water is held accountable for a variety of ailments; and the surgeon is threatened with suit every time the issue of operation is not perfect. The good father must always solace the puling infant. Of all scientists no one suffers more than the doctor from the exaggerated assumption that there is now a cure for all of man's ancient ills.

As the penultimate of the grounds for antiscientism, consider the shibboleth of the common man, which does not adapt well to the strict rigors of science. Nothing which does not meet the understanding of Everyman can be admitted ungrudgingly to his century. Science cannot always descend to his comprehension. The Populist reforms, education for all, and the enfranchisement of the masses are not steps that any of us would take back, but popular cultivation has hardly yet proceeded to a point that allows full familiarity with science by the man in the street. The outcry against the bowdlerization of modern schooling is now so loud that one cannot hear the words. It does seem likely that it is feeling its way slowly toward proper scientific content. In the meantime no one has put the case better than Harold Dodds of Princeton did in 1952 when he said American education's "greatest weakness has come from playing down academic scholarship in favor of universality at a level of intellectual aptitudes adjusted to a common denominator." Science cannot be taught that way.

A last surmise is that the rapid change in the concepts of science do not add to the security asked by the age. Today's experiment is tomorrow's hypothesis and the outworn and purely historical theory of the day after. The "facts" of science are daily less positive. Einsteinian physics is less reassuringly solid than Newtonian physics, and, for those of epistemological fancy, the Heisenberg uncertainty principle makes categorical knowledge quite unattainable. Science

is no longer a set of immutable laws. "Science is what scientists do and think," said Herbert Bailey. Science is therefore not a satisfying faith, not a sustaining substitute for religion, not, in the common phrase, "the answer." Scientific scepticism and dogmatic finality are at least methodological opponents, and while Bertrand Russell can say that, "The desire for a fanatical creed is one of the great evils of our time," still the lonely and terrified human being will seek certainty for his life, whether in one of the time-tried worships or in one of the new convictions like Communism or nationalism. And his anxiety and insecurity force him to recoil from science and the tolerance and doubt on which it rests.

There must be a way to meet the problem of antiscientism. If there is not, it is hard to see how the world can long maintain its present civilization or perhaps even continue to lodge the human race. The future depends on the understanding and the wide use of science. In searching for rescue, any American is led to think first in terms of education, for education is the basis of the democratic presumption. It would imply initially the curbing of "miseducation of the public in scientific matters," a phrase for which I am indebted to Irene T. Jones of the Science for the People Foundation. She has remarked in a letter to *Science* that the public is flooded by all the means of mass propaganda with "scientific facts" about cigarettes, drugs, cosmetics, and the gods know what. These are the rhapsodies of the copy-writers, and the "facts" about aspirin and bufferin must be removed from the air waves and the TV screen, presumably through firmer action by the FCC and the FDA in the public interest, before the more prosaic reality can prevail. It is not infeasible to transmit scholarly actuality; educational television and radio stations are doing it, in fact right here in Arizona in the university stations. Next, teaching of science must progress backward through every year of formal instruction, college, high school, the grades. And it must not be the tasteless and tired pap that is usually offered. Science can be as lively as any other subject, or more so, for it is the high adventure of the era. Boys dream about space travel, and this captivation should be easily converted into excitement over science. Thirdly, scientists must contribute more, to the columns of the newspapers and popular journals, on the lecture platform, in every day contact with their fellows. The need to communicate information is now an inseparable and urgent part of the scientist's task. At the same time it must be recognized by the public and press that busy scientists cannot take the time from imperative commitments to answer in detail every hoax and humbug. In fact counterattack is intrinsically difficult because of the lack of any common fund information or any common context of debate. The scientist who argues against chiropracty or flying saucers has to go wearily back to the beginning and erect the factual structure of observation and the premises that are accepted in scholarly logic. This is a laborious charge, and it cannot be done once a week to meet the absurdities that bubble up from nescience. The ultimate key lies in public sophistication about scientific matters, that will, as Sir George Thompson said in his presidential address to the British Association for the Advancement of Science last fall, honor the understanding of nature equally with control over it.

Some take the gloomy view that civilization is sliding into a new Dark Age in which dispassionate scientific thought will remain heresy, until that bright day when the hydrogen bombs end all speculation forever. But there is a more sanguine prospect, that the world is slowly becoming a more encouraging setting for science. Physicians believe this. They see people more alert to the benefits of scientific medicine, more insistent on lay information about it. They see the law turning realistic. For example, to balance the act in New York that sacrificed science high school examinations to sectarian bigotry there was the decision of the Supreme Court of Washington affirming the right of the University of Washington to require a Christian Scientist student to undergo a routine chest x-ray as a requirement for admission. Science has altered the public climate by grim integrity. Compromise will not serve, though it is being widely attempted, as though the observations of scientific inquiry could somehow be fitted to the preconceptions of older traditions. Continued emphasis on the irrevocable standards and the actual ideals of science is the main chance.

The doctor, the Arizona doctor, should play his bit part in this critical drama. Your Association, for example, should make it a perennial

item of its public business to advise the mass media and the schools about that part of science, medicine, for which we have responsibility. A modest beginning has been made in the direction of such edification — plans for a radio program, the offer of physician speakers for public forums, career information workshops for high school students, overtures to consult with the education departments of the Universities and with the school districts of the State on the medical and science curriculum.

Fervor and vigor are needed, not only to accomplish our part of the mission but to cooperate with other scientists in achieving the acceptance of science by the public, its leaders, and its children, as the servant of human welfare and the informing spirit of the modern age. And the time is frighteningly short if science is to permeate popular thinking, overpower the barricaded prejudices of the centuries, and control the destructive psychopathy of its conscienceless offspring, technology. It must be science's destiny not to preside instructively over man's early incandescent tragedy but to save the world for his ultimate triumph.

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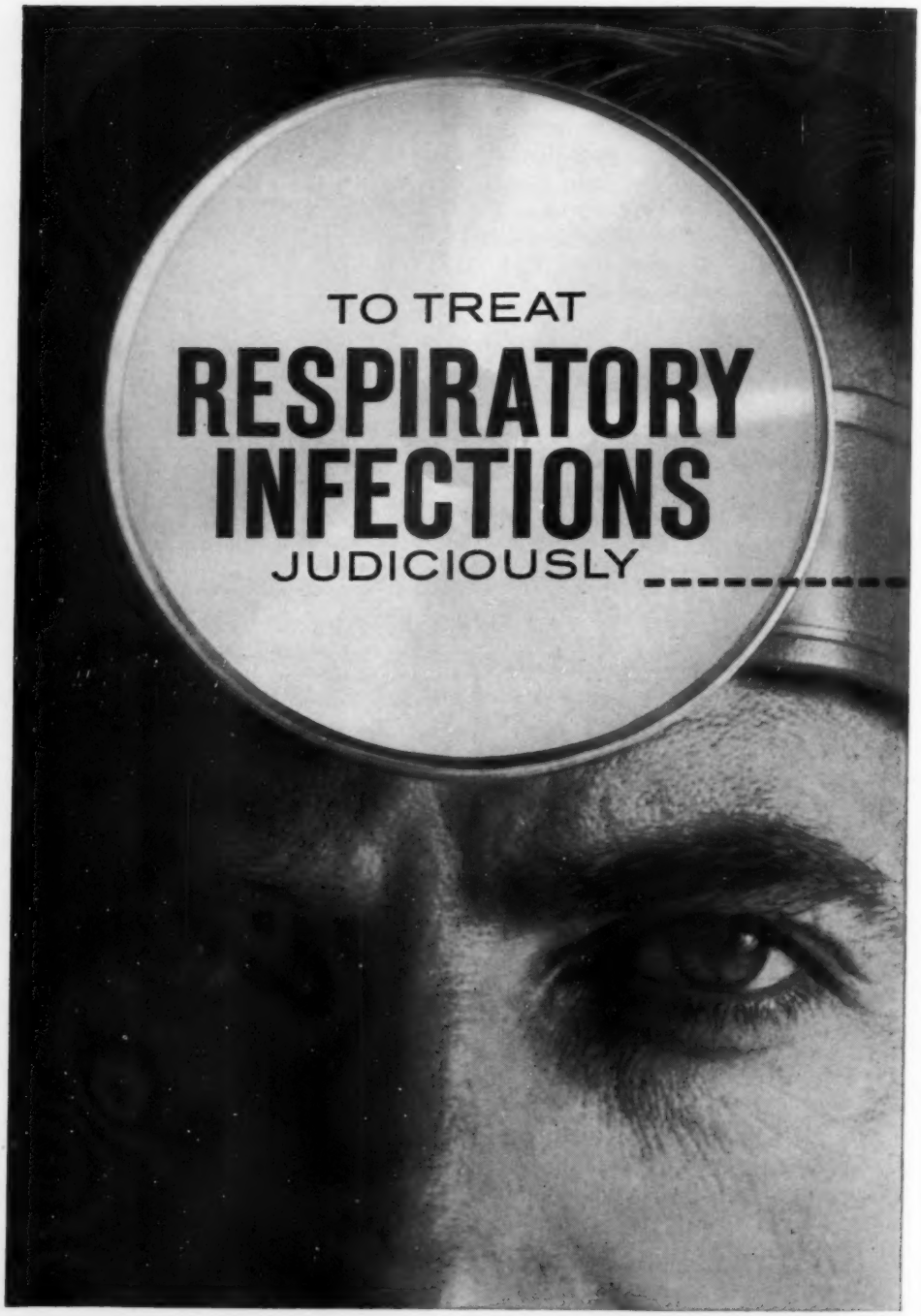
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1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported In: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

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2. no cumulative effects, thus no need for difficult dosage readjustments
3. does not produce ataxia, change in appetite or libido
4. does not produce depression, Parkinson-like symptoms, jaundice or agranulocytosis
5. does not impair mental efficiency or normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.
Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and as MEPROSPAN®—400 mg. and 200 mg. *continuous release* capsules.

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# of clinical use...

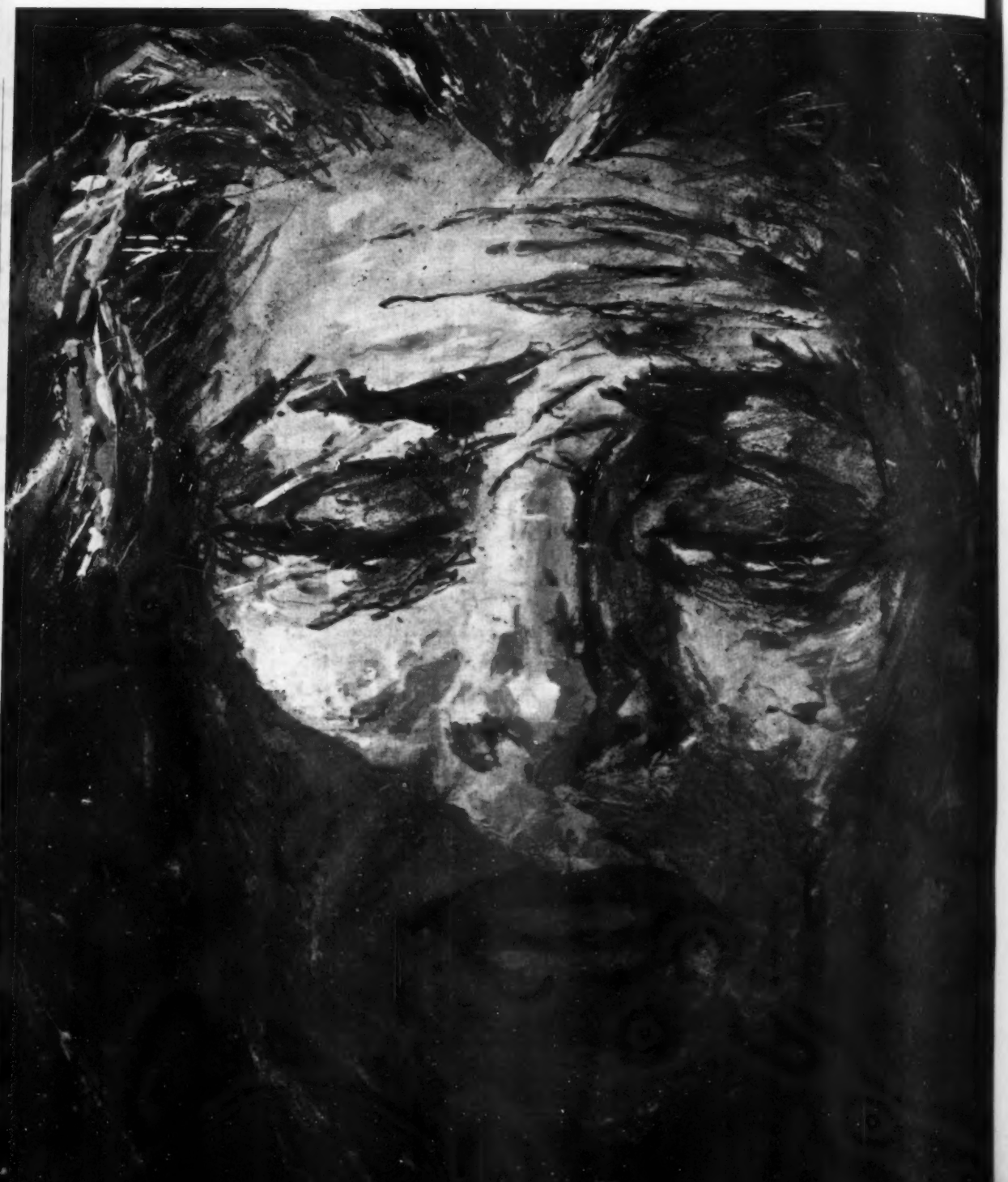
...for the tense and nervous patient

Despite the introduction in recent years of "new and different" tranquilizers, Miltown continues, quietly and steadfastly, to gain in acceptance. Meprobamate (Miltown) is prescribed by the medical profession more than any other tranquilizer in the world.

The reasons are not hard to find. Miltown is a ***known*** drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.***

NEW analgesic

Kills pain



stops tension

For neuralgias, dysmenorrhea, upper respiratory distress, postsurgical conditions... new compound kills pain, stops tension, reduces fever—gives more complete relief than other analgesics.

Soma Compound is an entirely new, totally different analgesic combination that contains three drugs. First, Soma: a new type of analgesic that has proved to be highly effective in relieving both pain and tension.* Second, phenacetin: a "standard" analgesic and antipyretic. Third, caffeine: a safe, mild stimulant for elevation of mood. As a result, the patient gets more complete relief than he does with other analgesics.

Soma Compound is nonnarcotic and nonaddicting. It reduces pain perception without impairing the natural defense reflexes.*

NEW NONNARCOTIC ANALGESIC

soma® Compound

Composition: Soma (carisoprodol), 200 mg.; phenacetin, 160 mg.; caffeine, 32 mg.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 apricot-colored, scored tablets.

NEW FOR MORE SEVERE PAIN

soma® Compound + codeine

BOOSTS THE EFFECTIVENESS OF CODEINE: Soma Compound boosts the effectiveness of codeine. Therefore, only ¼ grain of codeine phosphate is supplied to relieve the more severe pain that usually requires ½ grain.

Composition: Same as Soma Compound plus ¼ grain codeine phosphate.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 white, lozenge-shaped tablets; subject to Federal Narcotics Regulations.

References available on request.

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Editorials

The Old And The New

Probably no individuals are so often the subject of cocktail conversation as the minister and doctor, and there is little question that both are frequently deserving of the critical quips. As a group, the medical profession has found itself in an embarrassing paradox over the past decade or so, a paradox which the profession would like desperately to reverse, and yet can do little about it save as individuals in their day by day relationship with patients. The cocktail critiques are only a symptom of what has been a gradually steamrolling wave of increasingly poor public relations. Note the frequent newspaper articles, magazine and book reports on

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CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Editorials of **Arizona Medicine** are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

various unhappy facets of modern medical practice. The smouldering sentiments burst forth in congressional committees, the ever-growing rash of malpractice suits in our courts, the urgency of certain uninformed people to force social medical "reforms" in our legislative bodies, and of course, the open public criticism of doctors as individuals and doctors as a profession.

The doctors don't like this, naturally, and the profession as a whole is loudly groaning over its loss of hoary sacrosanctity. The profession can point with pride to an illustrious decade or two of really fantastic scientific achievements. And herein lies the paradox. Why — in the face of obvious proved attainments, the addition of years to life expectancy, the conquest of numerous infections, the near-total control of maternal mortality, surgical techniques of startling ingenuity, a host of new drugs, public health advances of sweeping scope — is the venerated image of the physician being subjected to such widespread criticism? Why the increased murmurings of sentimental support for the image of the good old family doctor, with his crusty disposition and notable distaste of things modern? How often one hears of "Old Doctor Ipecac" who delivered me in Mom's bed with a bottle of chloroform and a few newspapers to catch the mess, then proceeded to treat the scarlet fever, puncture my eardrum, set the fractured elbow, take out my appendix, treat Dad's dropsy, and hold Mom's hand while Dad finally drew his last breaths (ensconced in the old brass bed.)" And you didn't get a bill for 250 dollars from him either!

This is a fine picture of a fine old breed — a group of dedicated men who did a job of work with the tools at hand, but our image of these men must of necessity be placed in the proper frame of reference. By present standards, your parent's old physician was about as effective as his white mare would be on the Los Angeles free-ways. His home deliveries with the chloroform bottle and newspapers resulted in a horrifying loss of life to mother and infant, as well as innumerable shattered pelvic tracts which left Mom dribbling urine and feces uncontrollably the rest of her life; that scarlet fever would very probably be stopped in its tracks today; the nasty elbow fracture possibly left the child with deformity; the appendix if ruptured, might very well have resulted in your becoming bug-eyed, open-mouthed, huge-bellied dead from uncontrollable peritonitis; and Dad's dropsy might well have been called "dropsy" because Old Doctor Ipecac had no means of determining whether the swollen abdomen was a product of liver disease, heart failure, cancer implants or kidney shut down, and had little to treat it with if he did know.

This must sound exceedingly cruel and disrespectful, but it is not meant to be. The author fully realizes that his generation of physicians will be subject to the same criticisms by the next, and it is not a criticism of the iconoclast. It is simple progress. The job done by the horse and buggy doctor was profoundly more apt, able, and scientific than that done by his forebears of the 1800's, and so will the job be much improved in the future. It is a continuum of learning and productive research, of new instrumentation, of *concentration of effort.*

The public recognizes all the progress, and in their reflective moments, are deely appreciative of their good fortune in being recipients of this progress. But we also live in an age of realism, an age of questioning demand, an age when many cherished images are being reexamined for their basics. The sanctity of no idea, industry, profession or person is quite as safe as it once was. The ivory towers are crumbling, and perhaps this is a good thing. How rarely do we now hear, "God willed it; so be it." We are rapidly growing into creatures of demand, no longer content with platitudes. Formal religions are modifying, educators are under the gun, the physicists and theoretical mathematicians have carried themselves into a philosophical-scientific morass which has not only produced public fear, but a degree of internecine warfare among themselves. Sex information and misinformation is as close as the nearest newsstand, and the topics of sex conversation between total strangers of opposite sex (at any two-martini party) would be enough to send grandma into irreversible shock. The staid old magazines which used to contain recipes for rye bread and a few sweet pastel romances, now are replete with articles ranging from "Techniques of Intercourse for Those over Fifty" to "Female Circumcision." Advertisements in the slicks make full use of the double-entendre; television shows ectoplasmic black brassiers wafting sensuously about the screen;

movie-makers dish out cannibalism, sex deviationism, rape, adultery, and even necrophilia; our softback publishers no longer bother to tantalize the reader with "d....! or f....!" in mid-paragraph, or even to dignify the more hairy descriptions by a Kraft-Ebbing resort to ancient Latin.

Lo let's face it.

This is our age of liberal realism and the gravanima of the charges are of our own making. We have aided and abetted the trend, perhaps not necessarily as individuals, but most assuredly as a collective group. We have held sole responsibility for the public image of the physician and the public image of the profession, and the fact that his image is something less than crystalline should be recognized, accepted and understood in its modern context. The wailing wall is a comforting place to moisten with our tears, and grandma's parlor a great spot for reminiscing among the crocheted doilies, but neither is very productive of positive thinking.

If we are under the gun there are reasons for it. If we are being publicly dissected and widely condemned, it is because we have changed as sharply as the milieu in which we work has changed. The advertising industry, P-R men, and politicians have repeatedly demonstrated the effectiveness of force-feeding an uninformed public and thereby creating an "image." We should, as doctors, be more aware than most, of the need for, and results of broad programs of public enlightenment (viz: Semmelweis, vaccination, venereal disease, psychoses, poliomyelitis, etc.)

Would it not be wise to dissect ourselves on a broad basis before the public scrutiny? Why not inform the lay public of the need for qualification among specialties, the virtues of modern intense specialization and the results it produces; the necessary but harsh limiting of surgical privileges to those who have been schooled to a degree capable of fulfilling those requirements? Would it not be wise to explain thoroughly the "Doctor's Union," the A.M.A., which to many lay people is a reactionary, money-grubbing, medical Ku Klux Klan? Let's tell people in plain language that doctors nowadays are primarily skilled technicians in the fields of applied physiology, biochemistry, pharmacology, soft mechanics and live carpentry. The soft-sell, the idealism, the glorified patient-doctor relationship still exists yes, but not at all in its former brown, leathery study. It is a new and more brittle relationship, with sharper corners and finer lines – a relationship made less homey and personal by virtue of the new necessity for chrome trimmed ECG's, brain waves, crisp laboratory reports, thermocouples, hormone assays, needles, probes, machinery and cold steel.

We have grown into technicians by necessity. Let us explain in short order that as technicians in a fast society, we expect to be paid well for our knowledge and time. This society pays high for the other hallmarks of our present status, and would never think of not meeting the obligations of the second car, the color TV, the mortgage for the twin-johned rancher.

Also, and possibly of greatest importance, let's quit bragging complacently about the "best medicine in the world." We probably do practice, over all, the best medicine in the world, but this is a sad answer to the proponents of social legislation who would, and will, continue to ram medical legislation of restrictive, socialistic variety down our collective throats. Our approach to these people has been one of protectionism, self-interest and fearful arm-thrashing. Our political strategy has been anything but the recipient of public approbrium. Why don't we use our collective brains, with the help of public relations experts, and present loudly and forcefully, our own plans for indigent care, care of the aged, care of the low salaried retired? We have these plans, and though taxation for their proper support is a sensitive subject, it can be made apparent to all, that the taxation necessary for proper locally controlled facilities is a great deal less expensive than some of the broad socialistic schemes of the federal do-gooders.

Let us explain in straightforward terms the code of medical ethics and by all means, the reasons for the necessity of such a code. It holds no Tong secrets – why perpetuate the lay attitude that it does?

Let's air the smudges on our face – talk about the fee gouger, the egotist who feels capable of treating all human ills, the irresponsible among us, the fight with the naturopaths, chiropractors, and osteopaths. Talk about the gross inadequacies of many of our hospitals and why the local politicians do not make funds available for improvement. We have several smears on

our hands, and they won't go away without hard soap.

Ghost surgery, the fee split, the unfair restraints placed on young qualified men in their efforts to find hospital beds, the great need for a lay person to really know whether their chosen physician is capable of a given procedure or not, the occasional doctor — druggist's illicit liasion — are there more?

Perhaps we must first be cruel to be kind.

But if our proud profession is to retain or regain its respected stature, albeit in a totally modern guise, we must accept the probings of our fellows as genuine barbs of honest debate. And more than that, we should respect the enlightened intelligence of our lay public and present to them, the current face (all profiles) of modern medicine. Then let the chips fall where they may. We shouldn't lose a thing.

Arthur R. Nelson, M.D.

WRITE YOUR LEGISLATOR AND . . .!

Again we are being bombarded by the American Medical Association for "an extensive letter writing campaign to every Congressman and Senator in the United States" to oppose the Forand type legislation that is coming before Congress.

One can hardly disagree with the development of opposition to this legislation. However, it is time that we admitted that the philosophy of the public and the legislators of this country is keyed to developing added security for the people of our society. So let us not act as the medical profession did in New Zealand where they now admit their legislators desired help. They wanted positive recommendations. They wanted to be "taken off the hook" and were willing to support a positive program originated by the medical society. The program was never forthcoming. The medical profession acted as we have, stating what they were against but not stating what they would recommend.

The admission that deficiencies do exist in American medicine with positive recommendations to correct these dificiencies by the medical society to our legislators will be accepted. Letters written merely to deride proposed programs can convert no one. They will be accepted by those who agree with us. They will only find their way into the waste baskets of the men whose beliefs we are trying to change.

A positive, corrective program is essential.

Darwin W. Neubauer, M.D.

CENSORSHIP OF ARIZONA MEDICINE

The editorials of this publications do not necessarily reflect the opinion of the Board of Directors or the Executive Committee. They are the personal opinions of members of the Editorial Staff and certain guest editors.

These columns for text and editorial matter must remain open to express various viewpoints on all issues even when they are not in agreement with the administration of ARMA and at times even contrary to the course that many of us might like to see followed. When we reach the point where the editorial columns can no longer be critical of the actions as taken, they have little value. They should not exist to be a rubber stamp or to obtain unanimous approval of actions taken.

Possibly one would like to have that ideal situation of no differences of opinion. That does not exist and will not exist. The editor cannot condone the efforts made at limiting the material to be discussed in this publication.

Darwin W. Neubauer, M.D.

STAFFING AN ARIZONA MEDICAL SCHOOL

Comedian Sam Levinson said recently that a trip to a shoestore to buy the kids some shoes is quite an experience these days. "Every shoe salesman is a professor." A similar phrase is currently heard not infrequently in Arizona medical circles. It refers apparently to the impression left by the speech and proposed actions of some groups of physicians, mostly in Phoenix and Tucson. The implication is that a certain amount of lobbying is going on in order to assure the location of a future medical school in Phoenix or Tucson, depending on whether the professor is from Phoenix or Tucson.

Now, would it not be sensible to await the report of the Medical School Commission which is due to appear by midyear 1961? After all, they

may recommend that the school be in Salome or Eloy, and where would the professors be then if their plans have gone awry? The Medical School survey is being conducted on extremely thorough lines at a cost (a gift to Arizona) of almost $140,000. Would it be possible to declare a moratorium on lobbying until the survey has been completed, and its recommendations can be maturely evaluated? Furthermore, in order to avoid an unseemly scramble for faculty positions immediately after completion of the survey, would it not behoove the Arizona Medical Association to propose in caucus, recommendations for procedure in choosing faculty, if and when a medical school is approved? Surely faculty will be chosen entirely on merit and experience and after appropriate written applications have been evaluated by a University Committee.

Sam Levinson says children of one year who go for a shoe-fitting (when he was a kid, he walked barefoot), have their feet x-rayed first, even though they don't have any bones in their feet.

Andre J. Bruwer, M.D.

MID-WINTER CLINICAL SESSION

Some months ago this column strongly encouraged a mid-winter clinical session in Arizona to combine the excellent programs of the Heart Association, College of Surgeons and the Cancer Society.

It is quite evident that each of these programs is an expensive one and to a degree competes with the other for attendance. The expense could be minimized and the competition eliminated by the combining of these meetings into one joint program under the auspices of The Arizona Medical Association.

Steps to accomplish this should be taken.

Darwin W. Neubauer, M.D.

TIME TO CHANGE

The reorganization of *Arizona Medicine* is now relatively complete. Considerable improvement is still needed, some added reorganization is necessary, but all of these steps must be taken slowly and to a limited degree. They will not necessitate the extensive changes that were necessary to free use from our former contracts.

There has been some limitation of national advertising, yet the journal is a solvent unit of the society. This is true in spite of the necessity of paying off our former publisher and even though payment on accounts receivable runs two to three months behind payment on our own obligations. I believe the next year will see considerable improvement in the financial status of this publication.

May of 1961 will mark the completion of the fifth year of editorship by the present editor. The transition from our former publisher has been extremely difficult. However, with the reorganization now relatively complete, a change in editors is recommended, for there should never be the domination of this publication by one individual.

Darwin W. Neubauer, M.D.

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

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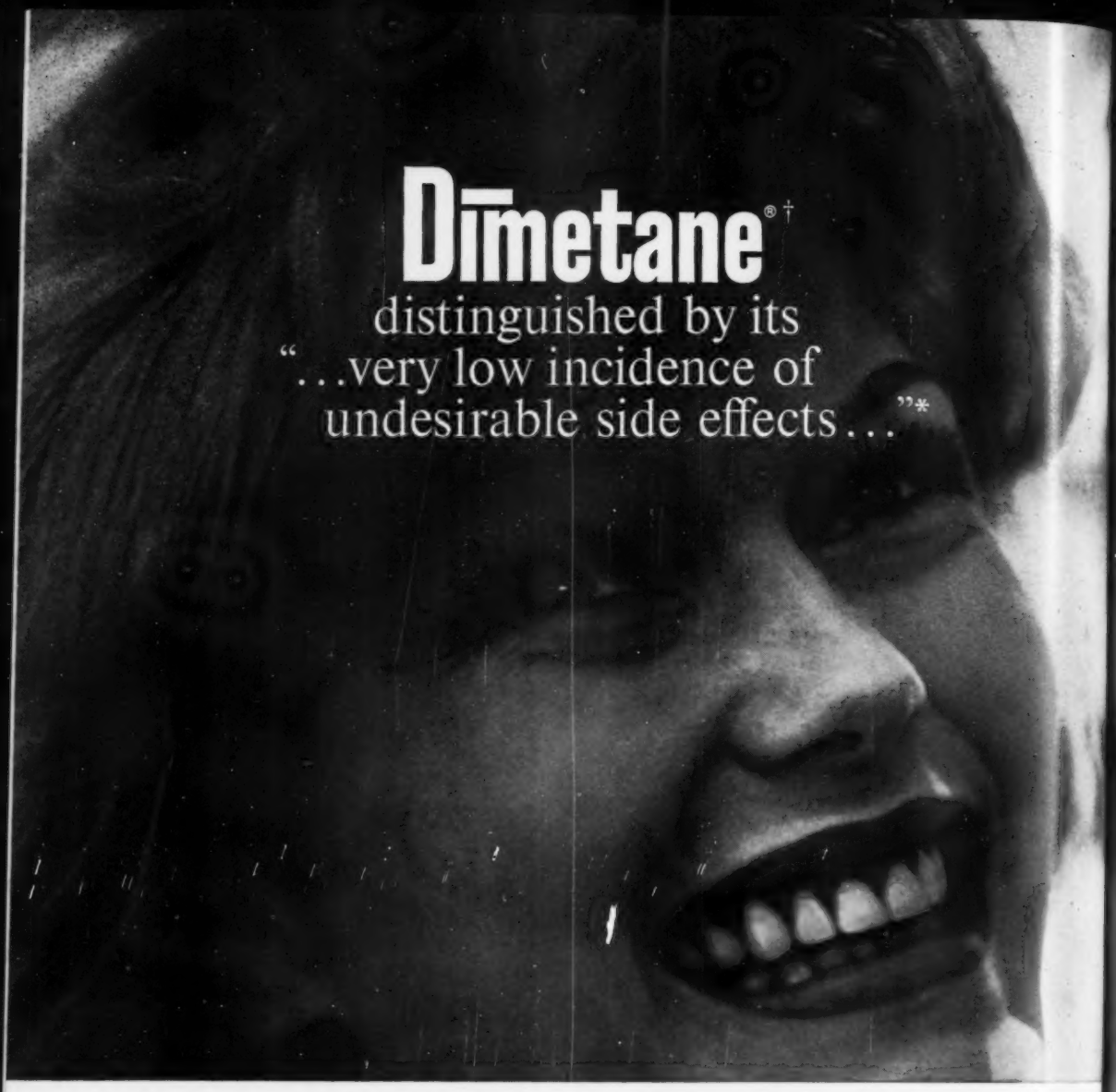

even in allergic infants

FROM A CLINICAL STUDY* IN ANNALS OF ALLERGY

Patients	200 infants and children, ages 2 months to 14 years
Diagnosis	Perennial allergic rhinitis
Therapy	Dimetane Elixir
Results	in 149, *good* results / in 40, *fair* results
Side Effects	Encountered in *only* 7 patients (in all except one, the side effect was mild drowsiness)

In allergic patients *of all ages,* Dimetane has been shown to work with an effectiveness rate of about 90% and to produce an exceptionally low incidence of side effects. Complete clinical data are available on request to the Medical Department. *Supplied:* DIMETANE Extentabs® (12 mg.), Tablets (4 mg.), Elixir (2 mg./5 cc.), new DIMETANE-TEN Injectable (10 mg./cc.) or new DIMETANE-100 Injectable (100 mg./cc.).

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*MC GOVERN, J. P., MC ELHENNEY, T. R., HALL, T. R., AND BURDON, K.D.: ANNALS OF ALLERGY 17:915, 1959.

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SPECIFICALLY FOR
INFECTIONS DUE TO
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AN ENTIRELY NEW SYNTHETIC
"STAPH-CIDAL" PENICILLIN

Staphcillin™

sodium dimethoxyphenyl penicillin
FOR INJECTION

UNIQUE—BECAUSE IT
RETAINS ANTIBACTERIAL
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WHICH INACTIVATE
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UNIQUE SYNTHETIC "STAPH-CIDAL" PENICILLIN

OFFICIAL PACKAGE CIRCULAR
November, 1960

STAPHCILLIN™

(sodium dimethoxyphenyl penicillin)

For Injection

DESCRIPTION

STAPHCILLIN is a unique new synthetic parenteral penicillin produced by Bristol Laboratories for the specific treatment of staphylococcal infections due to resistant organisms. Its uniqueness resides in its property of resisting inactivation by staphylococcal penicillinase. It is active against strains of staphylococci which are resistant to other penicillins.

Each dry filled vial contains: 1 Gm. STAPHCILLIN (sodium dimethoxyphenyl penicillin), equivalent to 900 mg. dimethoxyphenyl penicillin activity.

INDICATIONS

STAPHCILLIN is recommended as specific therapy only in infections due to strains of staphylococci resistant to other penicillins, e.g.:

Skin and soft tissue infections: cellulitis, wound infections, carbuncles, pyoderma, furunculosis, lymphangitis and lymphadenitis.

Respiratory infections: staphylococcal lobar or bronchopneumonia, and lung abscesses combined with indicated surgical treatment.

Other infections: staphylococcal septicemia, bacteremia, acute or subacute endocarditis, acute osteomyelitis and enterocolitis.

Infections due to penicillin-sensitive staphylococci, streptococci, pneumococci and gonococci should be treated with Syncillin® or parenteral penicillin G rather than STAPHCILLIN. Treponemal infections should be treated with parenteral penicillin G.

DOSAGE AND ADMINISTRATION

STAPHCILLIN is well tolerated when given by deep intragluteal or intravenous injection.

As is the case with other antibiotics, the duration of therapy should be determined by the clinical and bacteriological response of the patient. Therapy should be continued for at least 48 hours after the patient has become afebrile, asymptomatic and cultures are negative. The usual duration has been 5-7 days.

Intramuscular route: The usual adult dose is 1 Gm. every 4 or 6 hours. Infants' and children's dosage is 25 mg. per Kg. (approximately 12 mg. per pound) every 6 hours.

Intravenous route: 1 Gm. every 6 hours using 50 ml. of sterile saline solution at the rate of 10 ml. per minute.

**Warning:* Solutions of STAPHCILLIN and kanamycin should not be mixed, as they rapidly inactivate each other. Data on the results of mixing STAPHCILLIN with other antibiotics are being accumulated.

DIRECTIONS FOR RECONSTITUTION

Add 1.5 ml. sterile distilled water or normal saline to a 1 Gm. vial and shake vigorously. Withdraw the clear, reconstituted solution (2.0 ml.) into a syringe and inject. The reconstituted solution contains 500 mg. of STAPHCILLIN per ml. Reconstituted solutions are stable for 24 hours under refrigeration.

For intravenous use, dilute the reconstituted dose in 50 ml. of sterile saline and inject at the rate of 10 ml. per minute.

*This statement supersedes that in the Official Package Circulars dated September and/or October, 1960.

(continued)

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MICROBIOLOGICAL AND PHARMACOLOGICAL PROPERTIES

In vitro studies show that STAPHCILLIN is a bactericidal penicillin with activity against staphylococci resistant to penicillin G. Strains of staphylococci so far tested have been sensitive to STAPHCILLIN *in vitro* at concentrations of 1-6 mcg. per ml. These levels are readily attained in the blood and tissues by administration of STAPHCILLIN at the recommended dosage. This unique attribute is probably due to the fact that STAPHCILLIN is stable in the presence of staphylococcal penicillinase. STAPHCILLIN also resists degradation by *B. cereus* penicillinase. The antimicrobial spectrum of STAPHCILLIN with regard to other microorganisms is qualitatively similar to that of penicillin G; but considerably higher concentrations of STAPHCILLIN are required for bactericidal activity than is the case with penicillin G.

STAPHCILLIN is rapidly absorbed after intramuscular injection. Peak blood levels (6-10 mcg./ml. on the average after a 1.0 Gm. dose) are attained within 1 hour; and then progressively decline to less than 1 mcg. over a 4 to 6 hour period. It is poorly absorbed from the gastrointestinal tract. STAPHCILLIN is rapidly excreted by the kidney.

As shown by animal studies, STAPHCILLIN is readily distributed in body tissues after intramuscular injection. Of the tissues studied, highest concentrations are reached in the kidney, liver, heart and lung in that order; the spleen and muscles show lower concentrations of the antibiotic. STAPHCILLIN diffuses into human pleural and prostatic fluids, but its diffusion into the spinal fluid has not yet been completely studied. However, one patient with meningitis showed a significant concentration in his spinal fluid while on STAPHCILLIN therapy.

Toxicity studies with STAPHCILLIN and penicillin G in animals show that they have approximately the same low order of toxicity.

Certain staphylococci can be made resistant to STAPHCILLIN in the laboratory, but this resistance is not related to their penicillinase production. During the clinical trials, no STAPHCILLIN-resistant strains of staphylococci were observed or developed; the possibility of the emergence of such strains in the clinical setting awaits further observation.

PRECAUTIONS

During the clinical trials, several mild skin reactions, e.g., itching, papular eruption and erythema were observed both during and after discontinuance of STAPHCILLIN therapy. Patients with histories of hay fever, asthma, urticaria and previous sensitivity to penicillin are more likely to react adversely to the penicillins. It is important that the possibility of penicillin anaphylaxis be kept in mind. Epinephrine and the usual adjuvants (antihistamines, corticosteroids) should be available for emergency treatment. Because of the resistance of STAPHCILLIN to destruction by penicillinase, parenteral *B. cereus* penicillinase may not be effective for the treatment of allergic reactions. Information with regard to cross-allergenicity between penicillin G, penicillin V, phenethicillin (Syncillin) and STAPHCILLIN is not available at present. If superinfection due to Gram-negative organisms or fungi occurs during STAPHCILLIN therapy, appropriate measures should be taken.

SUPPLY

List 79502 — 1.0 Gm. dry filled vial.

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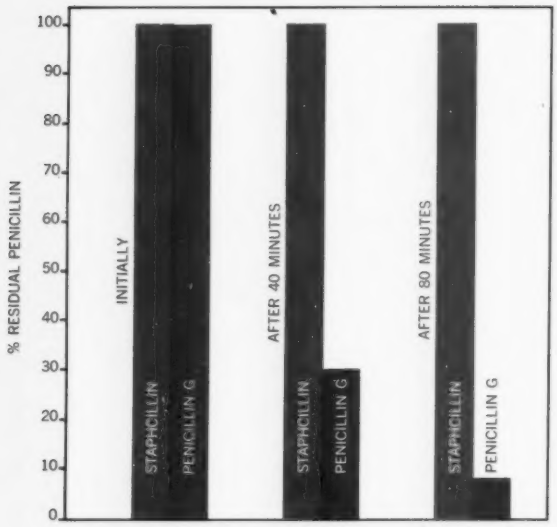
UNIQUE SYNTHETIC "STAPH-CIDAL" PENICILLIN



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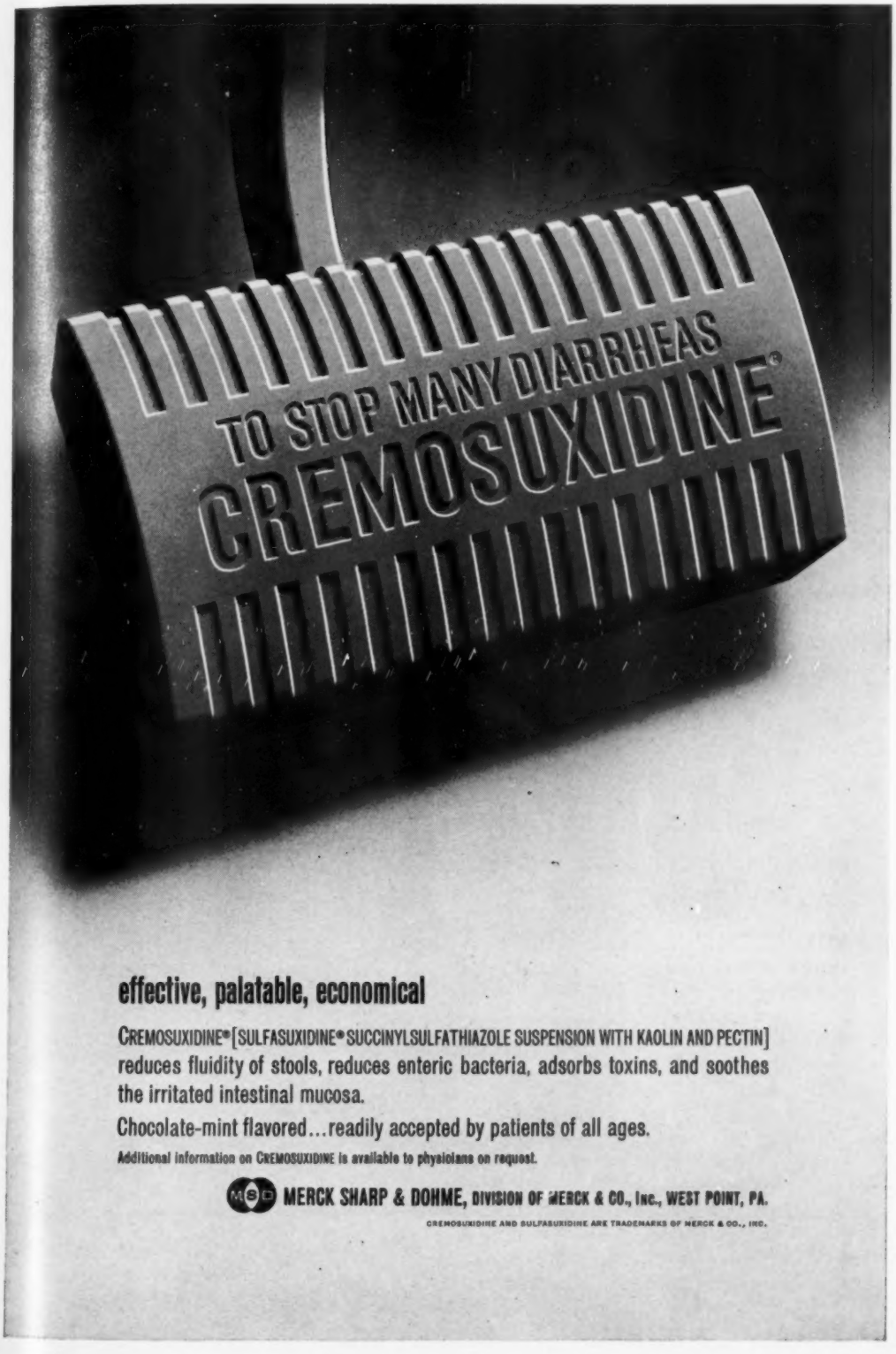

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References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 2. Ford, R. V.: Current Therap. Res. 2:92 (Mar.) 1960.

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NASAL SOLUTIONS AND SPRAYS

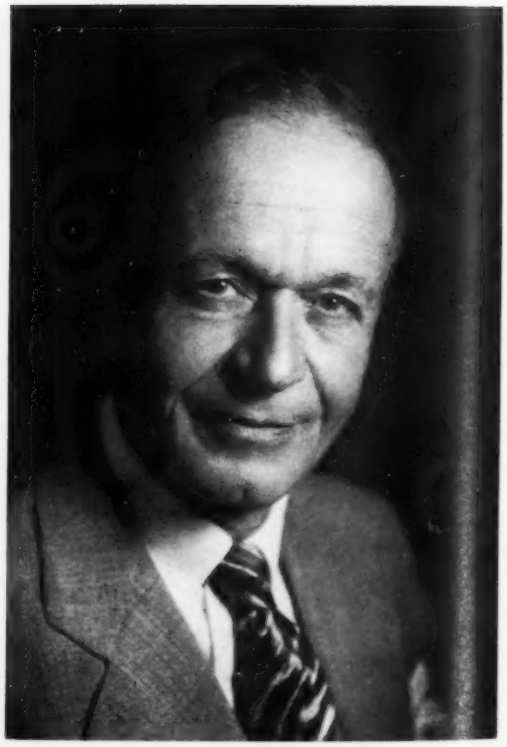
In Memoriam

Louis B. Baldwin, M.D.

1890 – 1961

Louis Beardsley Baldwin was born December 3, 1890 in Florence, Italy, under rather unique circumstances. His father was an M.D., William W. Baldwin, who had been advised to go to Florence, Italy, because of his health. In those days, the south of France and Italy were considered to be especially favorable climates for tuberculosis. Dr. William Baldwin practiced in Florence the rest of his life. His son came to this country and was graduated from High School in Binghampton, New York, and from Princeton University in 1914 and Columbia Medical School in 1919 with AOA Honors. He married Kathryn in 1922. Three children, Louis B., Jr., Frances, and Irving, survive him.

He was an intern at Presbyterian Hospital in New York from 1919-1920, a fellow in 1920, a voluntary assistant resident at Peter Bent Brigham in 1920-1921, and a resident at Peter Bent Brigham in 1922-1923. It was at about this time that the new medical school at Rochester was developing and Dr. Baldwin went to Rochester as Assistant in Medicine from 1923 to 1928, and was assistant Professor of Medicine from 1928 to 1930. He was attracted to Phoenix by the prospects of the Grunow Clinic, which at the time was being organized with the stated ideal



Louis B. Baldwin, M.D.

of developing a combined research program with medical practice. He moved to Phoenix in 1930.

In 1934 he went to Tucson as Director of the Desert Sanitorium, which later became the Tucson Medical Center. The plan of the Desert Sanitorium was to attract patients from all over the country, and Dr. Baldwin stayed with this institution until 1937, when he returned to Phoenix in private practice in internal medicine with offices in the Professional Building. He was a very busy internist.

During the next few years he became quite active in medical affairs in the Valley. He was joined by Dr. Ben Frissell, and later by Dr. Fred Coleman. In 1941-1943 he was President of the Maricopa County Medical Society.

The following comments were received from Dr. Ben Frissell regarding Dr. Baldwin: "I first met Dr. Baldwin in 1936, at which time he was Director of the Desert Sanitorium in Tucson. I worked as a Resident Physician under him for a year and was associated with him in Phoenix from 1938 to 1942 after he had resumed private practice here. Therefore, I knew him more intimately than most of his confreres.

"I remember him as a man of very fine qualities, both as a Physician and as a man; very artistic temperament and deeply sensitive to the needs of his fellow man. He was a learned scholar and always a student of Medicine; an excellent internist and a keen diagnostician. I do not think I have ever met or known a better informed physician or one with a better background of clinical knowledge and diagnostic acumen. His interest in Medicine and his energies in the practice of it were unlimited. His private library still stands as one of the most up-to-date medical libraries in the City of Phoenix, I am sure. It can truly be said of him that 'Medicine is a jealous Mistress', for he gave his all to the pursuit of his practice and the care of his patients."

"He was also a lover of good music, and in his later years his chief recreation was his enjoyment of his favorite records played through his Hi-Fi equipment which he assembled in his apartment. He had a deep appreciation of all things of beauty and had a fine collection of etchings and Japanese prints. His son, Gino, told me shortly after his death that on a recent visit to Minneapolis his father had dumbfounded a well known art critic there with his knowledge of Japanese art, and that he had found in his father's apartment after his death, in addition to numerous medical books of latest edition, a 6-volume work on Japanese prints.

"His patients were always foremost in his thoughts. He was never too tired for a call to a patient in need. I can never recall hearing him raise his voice or show any evidence of displeasure with a patient, even though I have seen him in some very trying situations, to say the least. I think Dr. Osler must surely have had someone of this man's temperament in mind when he wrote "Aequanimitas". I can recall several occasions during my association with him when he counselled me very wisely in such matters and explained to me the wisdom of controlling a flare of temper, etc. I confess I have not learned these lessons too well, but I can never give vent to feelings of anger or a flare of temper without a fearful pang of remorse and a recollection of his wise words.

"He could spot a 'faker' in medicine in a minute. His ethics, his honesty in medicine were legend and he had no tolerance for those of our brethren who failed to live up to those standards.

"He shunned publicity and stayed out of the limelight in medicine and otherwise, but when he became interested in a project he gave it his all.

"Even during his last days, the depth of his character was apparent. He was one of the best patients I have ever known, and as a Physician that is a rare quality, and I think for the most part he was even then outscoring those of us who were attending him in diagnostic acumen. He resisted analgesics and narcotics through this illness to the point sometimes of misleading his physicians as to the amount of his pain.

"Even on his deathbed he was insisting that all the many greetings, etc. which had been so gratefully received were each personally acknowledged. Many time in the past years I have seen a postal card or a note from him written to a shut-in patient while he was on a much deserved and too-seldom-taken vacation.

"There are many of our members who did not have the privilege of knowing this man in his most active years, but those of us who did have that privilege will long revere him. Truly, to my

thinking, this man exemplifies the ideal clinician, and I know that to many, many patients he will always remain their 'Beloved Physician'."

Dr. Fred Coleman makes the following statements: "I was a young internist fresh from an Eastern residency. I found a guardian and a good friend in my two years association with him. A striking thing about him was that he accepted the challenge and responsibility that the faith of the patient imposed on him, perhaps more seriously than many physicians do."

It was during his term of office as President of the Maricopa County Medical Society that he spent many hours studying the problems of blood banking, and worked to establish the Phoenix Blood Bank. It was his inspiration that created the organization which was largely controlled by and operated by the members of the Maricopa County Medical Society through elected representatives on the Blood Bank Board. He continued his interest in advising on Blood Bank affairs for several years after the war. He was a member on the staff of St. Joseph's and Good Samaritan Hospitals, a Fellow of the American College of Physicians, and a Diplomate of the American Board of Internal Medicine, a member of the Maricopa County Medical Society, the American Medical Association, the American Academy of Allergy, the American Diabetes Association. He was a member of the Phoenix Clinical Club and the Pacific Inter-Urban Medical Club.

He gave his undivided attention to a scholarly approach to the practice of medicine. His patients constituted not only a human problem, but also he was forever interested in the causes of disease and the unknowns on the fringe of medical knowledge. His retentive memory and concentrated interest resulted in the practitioner of medicine who reflected high credit to the profession. His patients tended to hold him in an ultra-high respect. Because of certain physical frailty, he was enabled at times to enter into a sympatico communion with his patients, which was unusually productive of good results in terms of medical therapy. He carried the marks of his early academic teaching training throughout his career. His memory adds dignity to the human species.

Howell Randolph, M.D.

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20 Nummular dermatitis	19	1	
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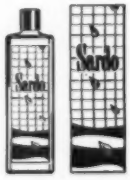

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1. Weissberg, G.: Clin. Med., June 1960.

2. Spoor, H. J.: N. Y. St. J. Med., Oct. 15, 1958.

**patent pending*
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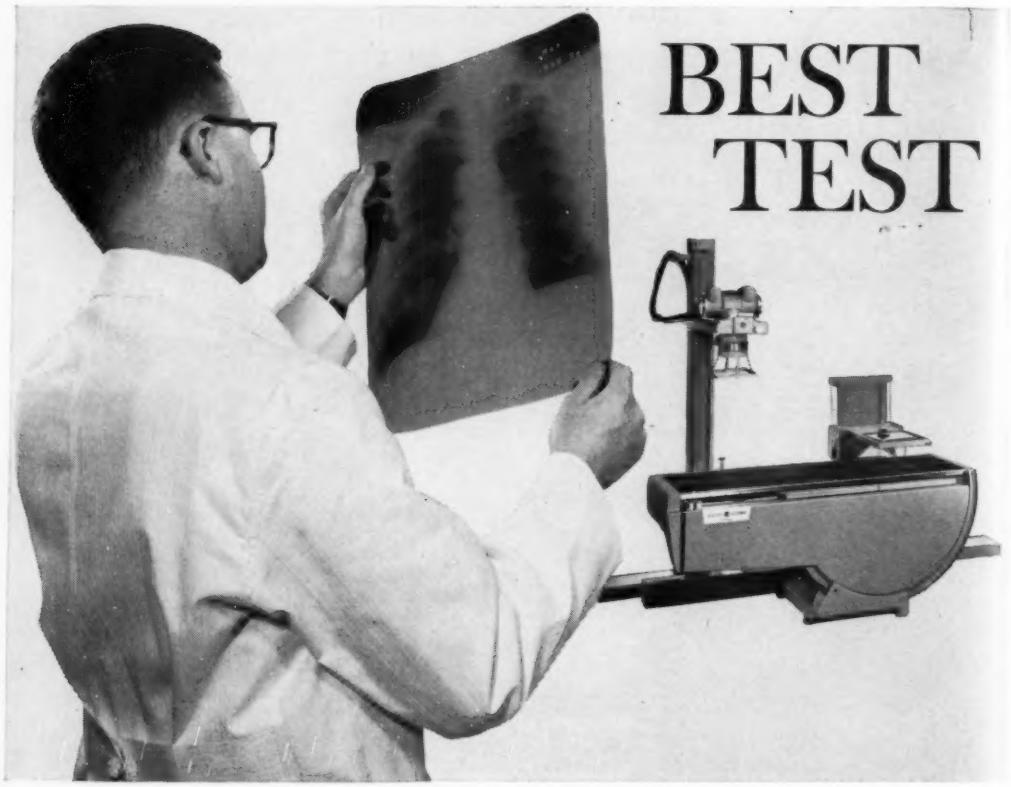

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Triamcinolone has long since proved its unsurpassed efficacy and relative safety in the therapy of *rheumatoid arthritis, inflammatory and allergic dermatoses, bronchial asthma,* and all other conditions in which corticosteroids are indicated. But ARISTOCORT has also opened up new areas of therapy for selected patients who otherwise could not be given corticosteroids. Medicine is now in an era of "special-purpose" steroids.[1]

One outstanding advantage of triamcinolone is that it rarely produces edema and sodium retention.[1,2]

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Hollander[1] points out the superiority of triamcinolone in not causing mental stimulation, increased appetite and weight gain, compared to other steroids which produce these effects in varying degrees. And McGavack,[2] in a comparative tabulation of steroid side effects, indicates that triamcinolone does not produce the increased appetite, insomnia, and psychic disturbances associated with other newer steroids.

ARISTOCORT can thus be advantageous for patients requiring corticosteroids whose appetites should not be stimulated, and for those who are already overweight or should not gain weight. Likewise, ARISTOCORT is suitable for the many patients with emotional and nervous disorders who should not be subjected to psychic stimulation. Furthermore, ARISTOCORT Triamcinolone, in effective doses, showed a low incidence of side reactions and is a steroid of choice for treating the older patient in whom salt and water retention may cause serious damage.[2]

References: 1. Hollander, J. L.: *J.A.M.A.* 172:306 (Jan. 23) 1960. 2. McGavack, T. H.: *Nebraska M. J.* 44:377 (Aug.) 1959. 3. McGavack, T. H.; Kao, K. Y. T.; Leake, D. A.; Bauer, H. G., and Berger, H. E.: *Am. J. M. Sc.* 236:720 (Dec.) 1958.

Precautions: Collateral hormonal effects generally associated with corticosteroids may be induced. These include Cushingoid manifestations and muscle weakness. However, sodium and potassium retention, edema, weight gain, psychic aberration and hypertension are exceedingly rare. Dosage should be individualized and kept at the lowest level needed to control symptoms. It should not exceed 36 mg. daily without potassium supplementation. Drug should not be withdrawn abruptly. Contraindicated in herpes simplex and chicken pox.

Supplied: Scored tablets—1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white).

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Topics of Current Medical Interest

One Hospital's Experience With Medical Indigency Of Elder Citizens

M. G. Wolfers

A member of the medical staff of Tucson Medical Center asked the hospital administrator if he might be able to estimate the burden imposed by giving service to the medically indigent in the elder citizen group. One week later the "estimate" was mailed to the inquiring physician and is reproduced herewith. Comparable precisely factual reports from other hospitals in Arizona could shed much needed light on a supposedly murky problem.

Dear Doctor .....:

As per your request of November 23, I have made a study of the experience of Tucson Medical Center with patients over 65 years of age.

SCOPE OF THE STUDY

The study was confined to the past ten months period from January 1, 1960 to October 31, 1960.

It consisted of an examination of all ledgers of in-hospital patients discharged during the period under study and the accounts of all out patients during the same period, as follows:

In Hospital Patients Accounts	13,195
Out Patient & Emergency Room Visits	11,300
Total Accounts	24,495

In addition, all ledgers of accounts written off as bad debts during that time, acounting to several hundred, were examined.

All accounts of in-hospital patients over 65 were tabulated in the following manner:

Age
Total Billed Charges
Amount of Bill Covered by Blue Cross
Amount of Bill Covered by Other Insurance
Amount of Bill Paid for by Patient or Patient's family

All accounts of Out Patients over 65 were tabulated as follows:

Age
Sex
Total Billed Charges, paid for in full.

The accounts written off as uncollectable were tabulated in the same manner and in addition the amount uncollectable was recorded.

The time involved in the above study was over 80 man hours.

SUMMARY OF FINDINGS

The following is a brief summary of the results of this study. The references in the findings are to supporting schedules which are attached to the report and made a part thereof.

Billed Charges Patients Over 65 to Total Billed Charges

The billed charges to patients over 65 represented 16.77% of the total charges. See Schedule I.

Percentage of Patients Over 65 to Total Patients

Patients over 65 represented 8% of total patients. However, in hospital patients in this group represented 12.5% of the total in patients while out patients represented only 3.8% of the total out patients. See Schedule 2.

Mr. Wolfers is currently President of the Arizona Hospital Association and Administrator, Tucson Medical Center.

Schedule 1
TUCSON MEDICAL CENTER
Analysis of Patients Accounts
Jan. 1, 1960 to Oct. 31, 1960

	Total Billed Charges	Uncollectable Accounts	% of Uncollectable to Total
All Patients	$3,173,888.32	$62,022.51	1.95
Less: Patients Over 65	531,805.23	1,924.24	.36
Patients Under 65	$2,642,083.09	$60,098.26	2.27
% of Billed Charges Patients Over 65 to Total			16.77%

Schedule 2
Percentage of Patients 65 or Over to Total Patients

	Total Patients	Patients Over 65	% of Patients Over 65 to Total
In Hospital Patients	13,195	1,529	12.54
Out Patients	11,300	431	3.81
Total	24,495	1,960	8.00

Schedule 3
Percentage of Male and Female Patients Over 65 to Total Patients Over 65

	Male Patients		Female Patients		
	Number	% of Total	Number	% of Total	Total
In Hospital Patients	800	52.77	716	47.23	1,516
Out Patients	202	46.87	229	53.13	431
Total	1,002	51.46	945	48.54	1,947

Schedule 4
Billed Charges of Male and Female Patients Over 65

	Male Patients		Female Patients		Total Billed Charges
	Billed Charges	% of Total	Billed Charges	% of Total	
In Hospital Patients	$294,198.62	55.94	$231,731.89	44.06	$525,930.51
Out Patients	2,391.92	44.12	3,282.80	55.88	5,874.72
	$296,790.54	55.81	$235,014.69	44.19	$531,805.23

Schedule 5
TUCSON MEDICAL CENTER
Analysis of Patients Over 65 by Age Groups
Jan. 1, 1960 to Oct. 31, 1960

	In Patients	Out Patients	Total	% of Total Paid Accounts
65 to 69	650	211	861	44.29
70 to 74	430	123	553	28.45
74 to 79	254	42	296	15.23
80	33	16	49	2.52
81	22	7	29	1.49
82	22	4	26	1.34
83	18	8	26	1.34
84	11	4	15	.77
85	15	2	17	.87
86	14	4	18	.93
87	17	—	17	.87
88	14	2	16	.82
89	3	2	5	
90	3		3	
91	8		8	1.08
92	1		1	
95	1		1	
96		3	3	
Total Paid Accounts	1,516	428	1,944	99.18
Accounts Written Off	13	3	16	.82
Total Accounts	1,529	431	1,960	100.00

Schedule 6
TUCSON MEDICAL CENTER
Analysis of Type of Payment of Accounts of Patients Over 65
Jan. 1, 1960 to Oct. 31, 1960

	Patients		Billed Charges		
	Number	% of Total	Amount	Amount Covered by Third Party	% of Total Covered
Blue Cross	682	44.99	$229,962.86	$198,646.18	86.38
Other Third Party	278	18.34	81,438.37	54,612.27	67.06
No Insurance	556	36.67	214,529.28	None	None
Total	1,516	100.00	$525,390.51	$272,672.06	48.15

Schedule 7
Analysis of Accounts Written Off In-Patients Over 65

	Total Bill	Paid by Third Party	% of Bill Paid by Third Party	Total Payment	Write Off	% of Total Bill Written Off
Blue Cross	$2,487.55	$2,329.59	93.65	$2,359.50	$ 128.05	5.15
Other Third Party	965.95	481.00	49.80	596.00	369.95	38.30
No Insurance	2,049.05	None	None	660.00	1,389.05	67.79
Total	$5,502.55	$2,810.50		$3,615.50	$1,887.05	34.29

Accounts Written Off as Uncollectable

The billed charges for the 10 months period were slightly over 3 million dollars. The total uncollectable accounts amounted to 1.95% of the total. Breaking this down between patients over 65 and under 65 we find that uncollectable accounts represented only .36% of billed charges in the age group over 65 as compared to 2.27% under 65. See Schedule 1.

Analysis of Accounts of Patients Over 65 by Sex

Male patients over 65 represented 51.46% of total patients over 65 while female patients represented 48.54%. See Schedule 3.

Charges to male patients represented 55.81% of total charges and female patients represented 44.19% of total charges to patients over 65. See Schedule 4.

Analysis of Patients Over 65 by Age Groups

Of the total number of patients over 65,99.18% of the total were paid in full. Of this group 44.29% were between the ages of 65 and 70, 28.45% were between the ages of 70 and 75, 15.23% from 75 to 80 and the balance over 80.

The oldest patients treated were — 3 aged 96, treated in the Emergency Room and the next oldest was — 95, an in hospital patient. Details of age group are set forth in Schedule 5.

Types of Payments of Accounts of Patients over 65

Of the total number of accounts of in hospital patients over 65, whose accounts were paid, 44.99% were Blue Cross subscribers, 18.34% had coverage by third party, and 36.67% were paid for by the patient or members of the family.

Of the patients who had Blue Cross, 86.38% of the total bill was covered by Blue Cross while those with commercial insurance or who were covered by some Social Agency only 67.06% of the bill was covered. For details see Schedule 6.

Analysis of Accounts Written Off of Patients Over 65

Accounts of in patients over 65 (not paid in full) amounted to $5,502.55 of which amount $1,887.05 or 34.29% was written off. Out Patient Accounts in the amount of $37.20 was written off bringing the total write off to $1,924.25 as shown in Schedule 1.

Of the in patients accounts written off, the write off of accounts having Blue Cross amounted to 5.15% of the amount billed, for accounts with commercial insurance the write off was 38.30% of billed charges, and for accounts with no insurance the write off was 67.79% of billed charges. See Schedule 7.

COMMENTS

The most interesting fact revealed by this study is that the uncollectable amount of hospital bills of patients over 65 was only .36% while for those under 65 the uncollectable accounts amounted to 2.27% of total billed charges in their respective categories.

These figures pertain only to Tucson Medical Center and may not be representative of other parts of the country.

It may be that the relative low loss on accounts of patients over 65 is due to the fact that many of the people in this age group have, upon retirement, moved to Tucson and have ample funds to meet their hospital bills.

On the other hand, there may be a great number of persons over 65 who have come to Tucson for health reasons who are not financially well off. Their number cannot be estimated

from any experience of Tucson Medical Center to date.

Under the Arizona law persons are not eligible for care in the County Hospital until they have been a resident for one year.

There is one other factor that should be considered in this study, and that is — will the people in the community who reach the age of 65 in the coming years be as financially able to provide for hospital care from their own resources as the present group over 65?

It is the writer's opinion that due to the present popular trend in the public thinking, that people will tend less and less to feel the necessity of providing for their old age and expect the government to care for them.

Respectfully submitted,
M. G. Wolfers, Administrator
Tucson Medical Center

PUBLIC LAW 86-724

Physicians of Arizona are herewith advised of an important notice which is now being distributed to certain retired Federal employees and their survivors.

This notice concerns the Retired Federal Employees Health Benefits Act of 1960 (Public Law 86-724), which is to be differentiated from the Health Benefits Act of 1959 (Public Law 86-382). The 1959 Act authorizes a health benefits program for "active" employees and their families and provides that coverage may be continued after retirement or death for those employees or survivors who meet certain requirements. This Act made no provision for coverage of those employees whose Federal employment terminated in retirement or death before the July 1960 effective date. The 1960 Act authorizes a health benefits program for just such "retired" employees and their survivors.

The Retired Federal Employees Health Benefits Act of 1960 is less liberal than the plan provided for active employees. It will become effective July 1, 1961.

The Act provides for one uniform Government-sponsored plan which any eligible person may join. "OR," a person may continue in any private health benefit plan he has at the time of his enrollment under the program. A list of private plans meeting the requirements of the law is being included in the information kits now being distributed. To be approved, the private plan 1) must have been providing health benefits for a year and 2) if an insurance company, it must be licensed to issue individual or group health insurance in all the States and the District of Columbia. The Commission which compiled the list made no attempt to evaluate the benefits structures and premium rates of private plans.

In contrast to plans provided by insurance companies, there are certain so-called "community plans" which include Blue Cross-Blue Shield and plans which have their own doctors and clinics. These plans are exempt from the requirement placed on insurance companies that they must be licensed in all the States and the District of Columbia. The only requirement placed on the community plans is that they must have been providing health benefits for one year.

The monthly contribution made by the Government will be three dollars for a self-only enrollment and six dollars for a self-and-family enrollment, except that the Government will not contribute more than the cost of the plan. Enrollment for self-and-family means enrollment of the eligible person, spouse, and unmarried children under the age of 19. In no case will the Government contribution exceed six dollars.

Details of the Act of 1960 remain to be worked out.

Wallace A. Reed, M.D.

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ANNUAL MEETING
APRIL 12-15, 1961
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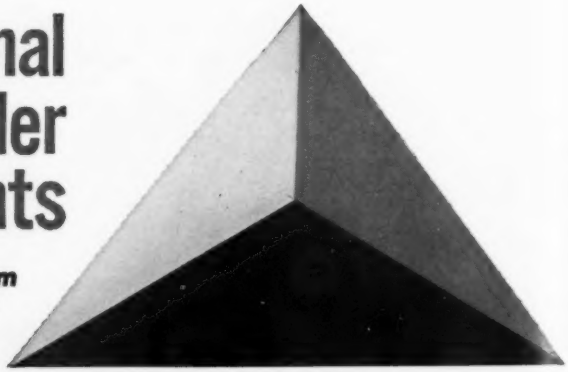

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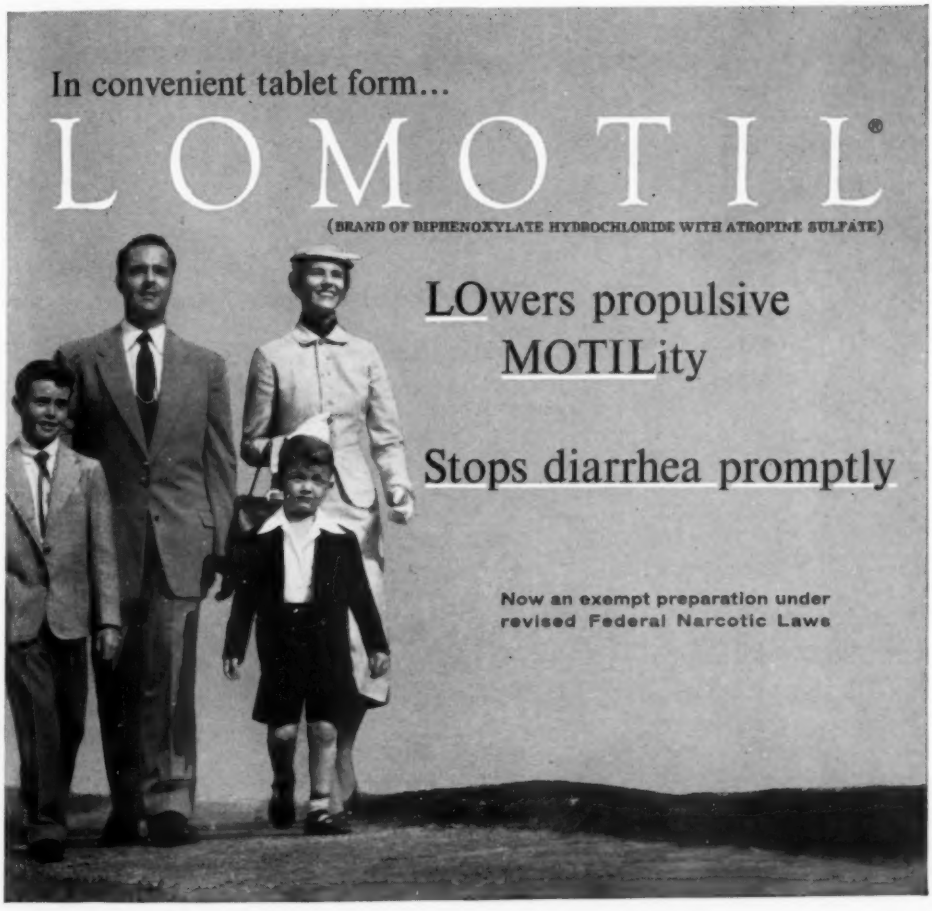

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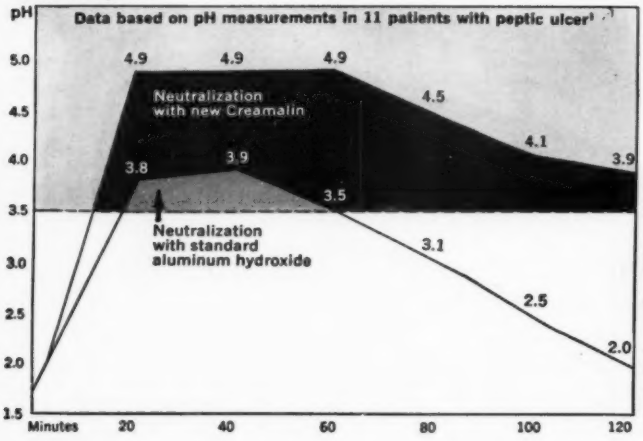

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1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: J. Am. Pharm. A. (Scient. Ed.) 48:384, July, 1959.

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Guest Speakers

Herbert L. Abrahams, M.D., Associate Professor of Radiology, Stanford University School of Medicine, Palo Alto, California.

Graduate of Long Island College of Medicine, M. D. Degree, 1946 Associate Professor in Radiology, Stanford University 1957 — Special Research Fellow, National Heart Institute, University of Lund School of Medicine, Lund, Sweden 1960.

Author of numerous Scientific Articles — Co-author of Scientific books and texts.

Member of 11 Scientific Societies and Organizations, including the American Board of Radiology, and the American College of Radiology.

Evan Calkins, M.D., Assistant Professor of Medicine, Harvard Medical School, and Chief of the Arthritis Unit, Boston, Mass. M.D. Degree, Harvard Medical School, cum laude, 1945.

Member, Training Grants Committee, National Institutes of Arthritis and Metabolic Diseases.

Member, Endocrine Society, American Rheumatism Association, New England Rheumatism Society.

Chairman, Committee on Diagnostic and Therapeutic Criteria of the American Rheumatism Association.

Chairman, Membership Committee of the American Rheumatism Association.

Mahlon H. Delp, M.D., Chairman, Department of Medicine, University of Kansas School of Medicine, Kansas City, Kansas.

M.D. Degree — University of Kansas, 1934. P. T. Bohan Professor of Medicine. Member of the American Clinical and Climatology Association. Co-author with Dr. Ralph H. Major, "Physical Diagnosis." Diplomate, American Board of Internal Medicine. During World War II he had 48 months of active service and held the rank of Colonel. At present, he is a student of the history of Medicine in Arizona.

H. Corwin Hinshaw, Sr., M.D., Clinical Professor of Medicine, University of California Medical Center, San Francisco, California.

Ph.D. Degree, University of California, 1927. M.D. Degree, University of Pennsylvania, 1933. He holds membership in numerous Medical and Scientific Organizations, including; The American Clinical and Climatology Association — Fel-

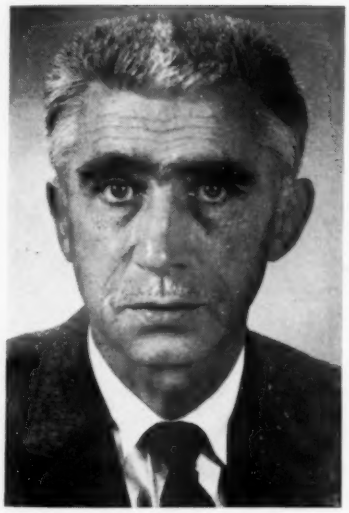
Herbert L. Abrams, M.D.

Evan Calkins, M.D.

1961 ANNUAL MEETING

Robert T. Manning, M.D.

John H. Mulholland, M.D.



Mahlon Delp, M.D.

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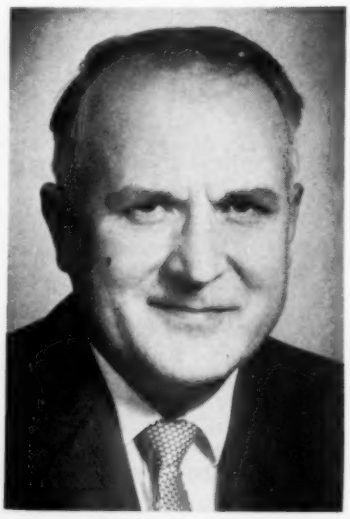

John W. Rebuck, M.D.

Alfred M. Steinman, M.D.

low, American College of Chest Physicians. He has held teaching positions in several Universities, and Medical Schools, and was the Head of a Section in Medicine, Mayo Clinic, Rochester, Minnesota. Consultant to Surgeon General, U. S. Public Health Service, 1951. Consultant to the Surgeon General, U. S. Army (Letterman Army Hospital). At the present time, he is Consultant in Medicine, Letterman General Hospital, Oak Knoll Naval Hospital, and the Southern Pacific Hospital. Dr. Hinshaw, has been a recipient of a number of honors and is listed in WHO'S WHO IN AMERICA and AMERICAN MEN OF SCIENCE. He is author and co-author of many articles and books.

Robert T. Manning, M.D., Associate in Medicine, University of Kansas Medical Center.

M.D. Degree, University of Kansas Medical School, 1954 — Residency: Internal Medicine, Kansas University Medical Center, 1956-58. Trainee: National Institutes of Arthritis and Metabolism, 1956-58.

John H. Mulholland, M.D., Professor of Surgery, New York University Postgraduate Medical School, New York, New York. M.D. Degree — New York University School of Medicine, 1925.

Director of Surgery, Bellevue Hospital, 4th Division. He holds the title of Surgical Consultant in a number of New York Hospitals. Diplomate, American Board of Surgery. Member of numerous Medical organizations and honorary societies. He served in the Armed Forces as a Lieut. Colonel, in the Army Medical Corp., and was awarded the following distinguished citations: Meritorious badge — Unit Citation; Bronze Star and Croix de Guerre (France).

Dr. Mulholland has held and now holds numerous important committee appointments including Member of the Examining Board, American College of Surgeons — Consultant in Surgery, Surgeon General's Office — President, American Surgical Association 1957-58 — Editor, Annals of Surgery.

John W. Rebuck, M.D., Ph.D., Physician in Charge, Division of Laboratory Hematology, Henry Ford Hospital, Detroit, Michigan.

M.D. Degree, University of Minnesota Medical School, 1943. Ph.D., Degree University of Minnesota, 1947 — Instructor in Hematology, Graduate School, Wayne University, 1947 — to date — Diplomate in the American Board of Pathology in Surgical Pathology. Dr. Rebuck has been author and co-author of 84 published medical reports, including 3 books. He has received numerous honors, and is a member of many professional societies.

Alfred M. Steinman, M.D., Research Department, G. D. Searle & Co. Graduate of Long Island College of Medicine, 1949. Member American Board of Internal Medicine. Fellow American College of Cardiology.

SYMPOSIUM ON MEDICAL AND SURGICAL PROBLEMS IN OLD FOLKS

The Arizona Academy of General Practice and The Maricopa County Medical Society announce a "Symposium on Medical and Surgical Problems in Old Folks" to be held Saturday, March 18, 1961 at The Hotel Westward Ho, Phoenix, Arizona.

PROGRAM

10:00 a.m. What Is Growing Old?
Edward H. Rynearson, M. D.
Mayo Clinic
Rochester, Minnesota

10:40 A.M. Pediatric Sign Posts to Premature Aging
Frederic G. Burke, M.D.
Georgetown University School of Medicine
Washington, D. C.

11:20 A.M. Emotional Struggles in Adjusting to Old Age
Beverly T. Mead, M.D.
University of Utah College of Medicine
Salt Lake City, Utah

2:30 P.M. Maintenance of the Cardiovascular System in the Aged
Arthur Grollman, M.D.
University of Texas
Southwestern Medical School
Dallas, Texas

3:10 P.M. Surgery After 65?
Philip Thorek, M.D.
Cook County Graduate School of Medicine
University of Illinois College of Medicine
Chicago, Illinois

4:05 P.M. Management of Those Aching Joints
L. Maxwell Lockie, M.D.
University of Buffalo School of Medicine
Buffalo, New York

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*Pomeranze, J.: J. New York M. Coll. *1*:32, 1959.

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1. Macy, I. G.; Kelly, H. J., and Sloan, R. E.: with the Consultation of the Committee on Maternal and Child Feeding of the Food and Nutrition Board, National Research Council: The Composition of Milks, Publication 254, National Academy of Sciences and National Research Council, Revised 1953. 2. Brown, G. W.; Tuholski, J. M.; Sauer, L. W.; Minsk, L. D., and Rosenstern, I.: Evaluation of Prepared Milks in Infant Nutrition; Use of the Latin Square Technique, J. Pediat. 56:391 (Mar.) 1960.

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